

EDUCATION IN INDIA TO DAY

by

O. P. Shah Dhurjati Mukherjee



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Foreword

A collection of essays on educational policy and reform can always provide interesting material for intellectuals and thinkers. The present compilation is no exception. The essays in this collection are written by eminent persons and touch on the various aspects of educational problems, from broad objectives of education to such details as the place of languages and examinations in the educational system. Education has always provoked discussions and debates, and it is but a healthy sign of growth that this is so. One thing which has clearly emerged in the course of these essays is the need for reforming our educational system. Most of us would agree that the objective of education is the development of the human personality, and that education must help an individual to realise his potentialities. It is good to be reminded that education is not a mere technology but a philosophy of life.

The Central Government has recently undertaken a review of the National Policy on Education with a view to giving emphasis to some of the aspects which are highlighted in these essays—the development of the potentialities of human beings, the place of productive work in the system of education, ends and means in education, examination reforms and similar other issues.

Another issue which, in my opinion, deserves serious consideration is the urgency to democratise education in our country, in other words, extend education to the masses through universalisation of literacy. The answer to our problems seems to lie mainly in the development of the individual and the need to bring all people in our country into the mainstream of life. But we must not forget that education alone cannot reform society. Programmes of educational transformation have to be accompanied by programmes of social and economic uplift. It is also necessary that the people themselves should be involved in programmes of educational reform. I do not think it is possible for the Government, universities or the Departments of Education alone to attempt this task. They can undoubtedly provide the support, the infrastructure and, where necessary, the guidance, but a large measure of involvement has to come from the various segments of community, the parents, public, students, teaching community and other sections of society.

The essays in the present collection are certainly timely ; they can provoke and sustain the discussions that are already current in our country, and contribute to the task of our educational reconstruction.

—P. C. CHUNDER

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INTRODUCTION

O. P. Shah

Dhurjati Mukherjee,

January 28, 1977.

The present educational system in India is, by and large, the legacy of the British times with minor changes here and there. This colonial system of education haunts us even today, despite the various reappraisals and recommendations of Education Commissions, Reports etc. Restructuring the present system is an immediate necessity as it has failed to fulfil the mission of building up the national character. It is very much necessary to revitalise the system by evolving some radical concepts based on a philosophy of education which is in consonance with the contemporary needs and demands.

1. History

When the British settled in India, self-governing councils had great powers. Through this organ, the villagers ran public institutions, specially schools. Gradually the system of village republics was disintegrated due to the improper system of education, so there arose the necessity for having a medium of contact between the English and the Indians.

But the problem arose whether education in India should be given through Indian languages or through English. At last, Lord Macaulay introduced English as the medium of instruction. Dealing with the aim of teaching English in India, he wrote in 1835: "We must at present do our best to form a class who may be interpreters between us and the millions whom we govern, a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect." Under the system those who had received this English education became slowly and steadily denationalized, de-Indianised and turned into 'imitation Europeans'. Lord Ronaldshay observed: "By the middle of the nineteenth century a period of intellectual anarchy had set in, which swept the rising generation before it like a craft which has snapped its moorings."

Westernism became the fashion of the day and Westernism demanded of its votaries that they should cry down the civilisation of their own country. The more ardent their admiration for everything Western, the more vehement became their denunciation of everything Eastern".¹

Among the majority of educated youths, Sanskrit, Persian and Arabic came to be regarded "as barbarous, unwholesome and unfashionable". This process continued till independence after which the legacies of the old colonial imperial period, whose greatest evil has been the demoralization of the national character, continued. During the last two decades demoralisation has been so complete as to render the framers of free India powerless for long to formulate a regenerating educational policy. With its predominant technical and commercial bias, the government has failed to formulate an educational policy to suit the temper and requirement of the changing times. Instead of inculcating the basic values of our tradition and culture for the all round development of the individual, the framers of the educational policy have indiscriminately copied from Western thinkers and tried its implementation.

II. Restructuring the system

That there has been a five-fold increase of colleges and universities, that the percentage of literacy has more than doubled, that more scholarly people have entered the teaching profession, cannot be denied —what calls for an analysis is the fundamental defect of the present educational system. As is well known, the expenditure on education, taken together both at the Centre and in the States, is second only to the defence budget but still nothing revolutionary has taken place. Why is it that no real success has been achieved in the implementation and realisation of the correct educational strategy? Is it true that the aims of education are alien not only to the state of political and economic development but also to the prevalent values of the socio-cultural system? These questions need careful analysis specially in the context

of reorienting the present educational structure to make it life-oriented, linked up with socio-economic growth and development.

The key to the present malady lies in the disappearance of academic freedom, on the one hand, and centralisation of education, on the other. The state of most colleges and universities in the country being what it is, anybody with the slightest commitment to real education would call for closing down a number of them. Teaching has now become dictation of answers to a few standard questions, and examiners are satisfied with these and are ready to reward unscholarly proceedings. Universities like Visva-Bharati and Kalyani which were expected to devote themselves solely to certain special subjects have become just the replica of other universities though official pronouncements on educational policy had all the time under lined the unjustifiability of the mushroom growth of colleges and universities.

It is highly essential that colleges and universities be made to extend their activities outward, establish link with the community, invite their advice on the curricula, meet the training needs of the community and employing agencies, and make an active effort to make their students more employable. The suggestions may be summarised as follows :

- (i) revision of courses so that the student becomes aware of the social problems of the immediate neighbourhood and of rural areas in particular ;
- (ii) increase of emphasis on self-study, and evolution of the role of the teacher from that of a mere lecturer to that of a guide and friend ;
- (iii) active guidance to students regarding employment opportunities, specially in fields where needed skills are short ;
- (iv) establishment of direct contact with planning and employing agencies ;
- (v) active participation in understanding and solving problems of the zone served by the institution and

help in development work, through surveys, extension work, literacy and other constructive campaigns and other forms of social work ;

(vi) more academic freedom.

Real education is primarily a process of training of the hand, head and heart in the art of living a happy, corporate life. Its object is the full development of the individual as a useful member of society, and thus it makes him capable of fighting against tyranny and injustice imposed upon him by nature and society as impediments to such development. No education is worth the name which does not inculcate the spirit of social service, self-sacrifice and self-reliance, the qualities that are essential for living co-operatively and harmoniously.

Today with the massive increase in educated unemployment, a vocational bias has to be given to the educational system. As the Kothari Commission observed : "A programme which can bring education into closer relationship with productivity is to give a strong vocational bias to secondary education and to increase the emphasis on agriculture and technological education at the university stage. This is of special significance where, as we have pointed out, the educational system has been for training young men so far mostly for government service and the so-called white collar profession."² The nation, at this crucial juncture, must restructure the education system integrating it with socially useful productive work.

III. Gandhian concept of education

That the Gandhian ideal of education, that is, education in the fullest sense of the term, has great relevance today cannot be denied. His concept of *nai talim* (new education) has to be experimented with, at such a critical juncture, when the British education system has virtually failed to make the individual socially conscious and useful, and to build up the national character.

According to Gandhi, the fundamentals of basic education are :

(i) all education to be true must be self-supporting, that

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is to say, in the end it will pay its expenses excepting the capital which will remain intact ;

- (ii) in it the cunning of the hand will be utilized even up to the final stage, that is to say, hands of the pupils will be skilfully working at some industry for some period during the day ;
- (iii) all education must be imparted through the medium of the provincial language ;
- (iv) in this there is no room for giving sectional religious training — fundamental universal ethics will have full scope ;
- (v) this education, whether it is confined to children or adults, male or female, will find its way to the homes of the pupils ;
- (vi) since millions of students receiving this education will consider themselves as of the whole of India, they must learn an inter-provincial language which can only be hindustani written in nagari or urdu script.¹

For this, certain fundamental values have to be inculcated in our educational programme :

- (a) Respectful attitude to the dignity of manual work inevitably generating the spirit of self-help, self-confidence and self-reliance.
- (b) A sense of social awareness and social responsibility through the involvement of students and teachers in the meaningful programmes of community services. This will enable them to put service above self — so essential for individual and collective development.
- (c) Promotion of a moral and spiritual outlook through the understanding of the fundamental unity of man, irrespective of caste, creed and colour. At all levels of education, suitable plan of action should be evolved to realise these values. The teachers and students

should be involved in the formulation, organisation and implementation of these programmes.

The basic system of education as conceived by Gandhi provides for the realization and fulfilment of all these aims. He wanted every individual to be a full-blooded, fully developed member of society and aimed at the development of man's personality — physical, mental, moral and even the spiritual faculties. He knew that 'man is neither mere intellect, nor the gross animal body, nor the heart or soul alone. A proper and harmonious combination of all the three is required for the making of the whole man.

Gandhi held that true education of the intellect can come through a proper exercise and training of the bodily organs. He agreed with Rousseau, Marx, Dewey and Tolstoy that "manual work, far from being inimical to intellectual activity, improves its quality". A balanced development of the mind, therefore, is possible only when it proceeds *pari passu* with the education of the physical and spiritual faculties of the child. In this connection, Gandhi observed: "Useful manual labour, intelligently performed, is the means par excellence for developing the intellect. One may develop a sharp intellect otherwise too. But then it will not be a balanced growth, but an unbalanced distorted abortion An intellect that is developed through the medium of socially useful labour will be an instrument for service and will not easily be led astray or fall into devious paths ..."⁴

Education of the heart or development of spiritual or moral faculties includes the cultivation of the spirit of freedom from all bondage—external as well as internal. 'Sa vidya ya vimuktave' (education is that which liberates) has been the motto of the Gujrat Vidyapith attached to Gandhi's Satyagraha Ashram founded in 1915 at Kochral in Gujrat. Explaining the aphorism education is that which liberates, Gandhi said: "Education here does not mean mere spiritual knowledge nor does liberation signify only spiritual liberation after death. Knowledge includes all training that is useful for the service of mankind and liberation means freedom from all manner of

servitude even in the present life. Servitude is of two kinds : slavery to domination from outside and to one's own artificial needs. The knowledge in the pursuit of this ideal alone constitutes true study".⁴

In fact Gandhi's basic method has a resemblance to the Montessori, Cousinet and Decroly methods, to the 'Kindergarten, Lovelock, Dalton and Winnetka systems and nearest to Dewey's project method and Russian complex method. However, there is one fundamental difference between these methods and that proposed by Gandhi. These methods are quite costly, particularly for a poor country like India, to make education available to the masses. Again, although these methods emphasize self activity of the child, the activities, except perhaps Dewey's project method and Russian Complex method, are not necessarily productive of socially necessary values, which Gandhi's productive manual work method is.

The socially useful productive programme with emphasis on manual labour should cover all stages of education in order to help socio economic growth and development. This work education concept should be varied and flexible enough to suit local conditions and available resources and skills. For instance :

- (i) participation in sowing and harvesting operations ;
- (ii) participation in programmes of relief in times of famine, flood, epidemic and other such natural calamities ;
- (iii) participation in craft activities ;
- (iv) organising suitable programmes of adult education, including spread of literacy ;
- (v) adoption of new methods of teaching which provides maximum opportunities for work with hand.

These productive work programmes are very vital in the primary stage as it will help in attitude building of more than seventy million children by exposing them to real work-experience. At the secondary stage, every effort should be made to link work-education with development programmes that are

being implemented in the neighbourhood. At the university level, the work experience should be all the more high-lighted. Productive activities, to give it a more scientific approach and content, should train and attach students to workshops and factories. Close coordination of educational institutions with industrial, commercial and agricultural enterprises will produce the desired result.

IV. The case with the universities

Today, inspite of the ever-increasing problem of un-employment and under-employment, the universities are producing at random engineers, medical and agricultural graduates, master-degree holders. They lack courage and confidence (and the government is also not helping them) to venture for self-employment and as such, it is natural that they go a begging for salaried jobs and feel undone unless they get it. The government, in these circumstances, should, through proper planning and foresight, try to mitigate the miserable plight of the educated unemployed. Requirement of manpower in relation to various kinds of jobs should be envisaged so that the parity between demand and supply remains steady and undisturbed. Initially, the demand for engineers was high, but the supply within a decade far exceeded the demand resulting in about 20,000 unemployed engineers. However, there are fields where supply of manpower does not equate demand. The government should accordingly inform and guide all educational institutions, be it technical or general, so that specialised courses can be given attention to, and students on completion may get immediate employment, in proper lines.

The question of vocationalisation has great relevance to day as it definitely will link education with employment opportunities. The courses of study should be diversified and specialised with emphasis in the productive fields of agriculture and small-scale and cottage industries. Labour intensive productive activities have scope and potential for absorption of the vast human resources. Thus 10+2 (school + secondary stage), if vocationalised, will take the youth into the field of

work, thus reducing the present day rush for higher and university education. In this context, delinking of degrees with service is quite cogent. Recruitment should henceforth be made on merit, ability and fitness independent of degree. The amendment of existing recruitment rules will help in the elimination of wastage and corrupt practices in examination and put educational development on a sound and healthy footing.

The future pattern of educational administration, unlike the present centralised system, should be as far as possible autonomous comprising a face-to-face community, managed by teachers, students and guardians. Active involvement of this triple force in the formulation of syllabus, curriculum, preparation of text books, teacher training programme based on local needs, specially at the primary and secondary levels, will make a practical and realistic approach. Besides, this decentralised pattern will give more scope and opportunity for diverse and new experimentation and research in the field of education. In this context, the following propositions of Gandhi may be taken into consideration :

- (i) the course of primary or basic education extending at least seven years and including the general knowledge gained upto the matriculation standard, less English *plus* a basic handicraft, should take the place of the existing primary and high school education and should be free and compulsory for all ;
- (ii) this education should be woven round the basic craft which should at once be the vehicle for the allround development of the educant and enable him to pay for his tuition through the products of his labour, thus making primary education, taken as a whole, self-supporting at least in respect of recurring expenses ;
- (iii) college and university education should be an extension and continuation of the Basic Education course.

The challenging task of education in the country calls for a concentrated efforts from planners, educationists, teachers

and students, The citizens of tomorrow require a new education, productive and creative, to make them worthy of a democratic, Non-exploitative egalitarian social order. Education, linked with socially useful productive work, will make it an instrument to achieve that end.

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RE-THINKING ON ENDS AND MEANS IN EDUCATION

K. R. SRINIVASA IYENGAR

What are my credentials to write on this subject? May I say at the outset that, if I am not young enough to know everything, I hope I am not also quite old and senile enough to have wholly forgotten the hard lessons of experience. I have been a pupil, I have been a teacher and even an educational administrator, and I feel that the times are indeed out of joint and compel some earnest re-thinking on the Ends and Means of Education, especially in the Indian context.

Ten years ago, in the course of his LSE oration, Sir Eric Ashby said :

“The paradigm for a graduate 40 years ago was the conventional man ..That sort of young man cannot cope with the flux of the modern world. The contemporary paradigm is a man educated for insecurity, who can innovate, improvise, solve problems with no precedent. He must have expert knowledge. That is what he gets from his lectures and laboratories. He must also have the confidence which comes from participation in community living. That is what he gets from belonging as a coequal. to a society of Chancellor, Masters and Scholars”.

The relevant questions to ask are : How ‘expert’ is the expert knowledge that the pupil gets today from his lectures and laboratories? And how really purposive is his actual participation in communal living, whether in the Campus or in society? The answers would doubtless vary from place to place.

Organised education has been an attempt on the part of society or of the leaders of society - to prepare the coming generation for the tasks of tomorrow. In the plant world, bird

N. B.—Based on a lecture delivered at the British Council Library, Madras, on October 8, 1975.

world and the animal world, there is apparently no formal education. Biological processes repeat themselves as if under some benevolent compulsion. The play of characteristic faculties and the instinctive mastery of particular skills seem to ensure the possibility of survival for specific periods, and also for the perpetuation of the species. I once saw how a fledgling sparrow was taught the art of flying by two veterans, probably its parents. In a matter of about 15 minutes the education was complete : example, encouragement, one or two failures, and lo ! the young sparrow could now fly with ease.

With all flora and fauna, while ordinarily the perpetuation of the species is thus ensured, there is however no movement towards 'progress' from generation to generation. Sparrows have remained sparrows and porcupines but porcupines. On the other hand, several species have failed in their struggle for existence and become extinct.

But with *Homo Sapiens* it has been a very different story. He is constantly learning, discovering, aspiring, advancing, growing in knowledge, acquiring newer and newer skills, rising on the wings of contrivance and complexity, and trying to rise higher still and higher. Setbacks and disasters there have been, yet the spur of aspiration has been unfailing, and defeats have always been followed by fresh effort sustained by hope abounding and new leaps forward.

Indeed, the education of the human child is apt to compress into a few years the cumulative experience of whole Yugas — geological epochs — of evolutionary endeavour. In the mother's womb the embryo is like the 'Matsya' (fish) avatar : in his crawling days the child is the 'Kurma' (Tortoise) avatar : in his early boyhood he is the 'Varaha' (bear) and even the 'Nara simha' (man-lion), and no wonder there is so much restlessness and commotion and violence. And 'vamana' (pigmy) the boy or young man in the class-room, library, laboratory or playground is the glory of creation, so engaging and so abulient, and so unpredictable in his faculties and possibilities. These little Vamanas who come to our schools

and colleges are veiled gods and goddesses who have lived through four incarnations already, and are now poised to measure in three quick paces the whole universe of knowledge — the triple worlds of earth, heaven and hell — and ask for more too, if given a chance.

Education, then, is not merely an insurance against the uncertain challenges of the future : it is also a daring adventure into unknown possibilities. And with each new generation there is a new tempo of excitement and expectancy.

Since the dawn of human civilisation several thousand years ago, the education of the young must have engaged the anxious attentions of the older generations. They may not have talked of 'educational psychology', but without some sure intuition into the secrets of the human psyche and the powers and possibilities of the human mind, the educational problem could not have been faced so resolutely nor yielded such creditable results in the past. But even so, being after all the handiwork of men who are themselves old or middle-aged, the educational machinery has at all times been afflicted with an inbuilt irrelevance and insufficiency. Educators can formulate courses of studies only on the basis of the knowledge and experience they had won in their heyday. In the result, the content and scheme of education inevitably becomes rather out-of date or obsolescent by the time the children and youth are rushed through the educational grind to face the competitive world outside.

It is clear, then, that there was always the need to look beyond the frontiers of formal education, and to rely on life-long self-education : in other words, to opt for resilience and self-reliance, and to be in constant readiness to face and master the unexpected.

But while this paradox of the obsolescence of the content and scheme of education has bedevilled educational effort at all times, the recent change of pace in human affairs has rather accentuated the old malady. Now-a-days we talk promiscuously of the population explosion and the knowledge

explosion. What is maddening is that the doubling period, whether for population or for knowledge is steadily decreasing. A century ago, at the current rate of growth the doubling period for population was about 200 years ; even 50 years ago it was but 80 years ; today it is about 35 years. By the year 2000 A. D. (or Anno Bombini 55), the world population might reach 6 billion, and the figure might conceivably be 400 billion by the year 2200 A. D. The figures for India would be 1 billion and 60 billion respectively. Because of the phenomenal advance in science, especially medical science, man has learnt to control or eliminate several of the diseases and other circumstance that caused infant or early mortality. Man has also learnt to build upon past achievements and raise material edifice upon edifice during the last two or three centuries.

Scientific knowledge is the result of a tireless study of phenomena, endless probings into Nature, and adventures among ideas and happenings. This kind of knowledge has been doubling itself of late every ten years. But these spectacular exploits of secular education are now themselves posing serious new problems. With the rise in life-expectation alas ! there is a quickened mental obsolescence, and age has more worries and frustrations than delights and realisations. In the context of the double explosions we must ask ourselves : Can we adequately feed this ever growing population with food for the body as well as the mind – and provide it with the necessary clothing and shelter ? And can we hold together the immense body of accumulated and accumulating information and fuse it in into knowledge and practise it as wisdom ? From the Stone Age that extended to a few million years, the Bronze Age to 5,000 years, the Iron Age to 5,000 years, we have lived through 50 years of the Atomic Age and 10 years of the Space Age. The interval between scientific discovery and practical application is thinning out more and more. If the idea of the photograph took over 100 years to translate itself into reality, the telephone and radio 50 and 35 years respectively, the transistor took only 5 years to become marketable and laser rays a mere 10 months.

There is the threatening bulge of the children and youth coming to school and college, and there is the threatening bulge of information and technological invention. We have somehow to contain the two bulges, prevent their bursting, and thereby safeguard the future.

The current pace of population-growth is such that the gap between the richer and the poorer nations, and between the privileged and the unprivileged sections within the different nations, is widening alarmingly instead of closing. Likewise the even headier pace of knowledge expansion poses problems of comprehension and even utility that seem to defy easy solutions. Along with this proliferation, there is being witnessed also the no less tantalising fragmentation of knowledge. 'Research' has acquired an exponential speed and no single head — not even a Newton's — can now contain all that is essential even in a tiny sub-branch of knowledge. Hundreds of thousands of specialist scientific journals try desperately to keep track of all this new research, this new knowledge, and the Times of London devotes daily a column or two to survey the day's forced marches in the fields of science and technology. Encyclopaedias try to store up all the accumulated information, speculation and generalisation of our time, but these encyclopaedias have themselves to be revised and amplified every few years.

When the expanding youth generation comes to the academy, we expect it to master in a few years what the entire evolutionary adventure has accomplished so laboriously over all past ages. If the tasks of education were never easy, today they are bewilderingly more difficult than ever before. Too many students, alas : and too many loads of knowledge : and too meagre resources : and too little time at our disposal : and too much distraction to permit us to make really profitable use of even the available time ! The aggregating situation is plainly impossible. Expansion seems already to have gone past the stage of profitable returns, and yet we feel helpless to arrest this growth, this madness, this headlong run towards radical suicide. Ottarpara Jyotishree Public Library

If the double explosions of our time make our educational endeavours at once too expensive and too inefficient, and also inclined towards a further widening of the chasm between the privileged elites and the unprivileged preponderant majorities, the current remedial exercises seem hardly to touch even the fringe of the problem. There is, for example, the ingenuous move at selective improvement. Let there be one superschool for every 500 plebian schools. Let a dozen of our 100 universities be promoted to 'major' status. Let two or three departments in a university be singled out and blazoned forth as 'advanced centres'. These will be the pace-setters in education. ! On the contrary, this move will only further deepen the existing gulf between expensive elitism and sophistication on the one hand and mass mediocrity and demoralisation on the other. There are, and there will be, differences enough, but any deliberate attempt to push some few ahead of the multitudinous rest will merely cause widespread resentment and also prove self-defeating. The super school wallas, the majorvarsity products and the advanced centre paragons are apt to feel alienated by the bleak prospect around them, and are only too ready to make a bee-line to one of the more affluent countries.

There are other desperate moves, like the setting up of 'free' and 'open' universities, the minimisation or elimination of lectures and examinations, the provision of divers streams (regular classes, evening classes, self-preparation) all leading to the same final examination, and the establishment of 'deemed' universities and 'autonomous' colleges. Only experience can prove whether these novelties will not prove really worse than the diseases they are supposed to cure.

Again, any attempt to impose further or earlier specialisation might only mean an even grosser perversion and irrelevance than under existing conditions. The need is rather for softening specialisation at both extremities of the educational system, and all along the way. Thus education in school, college and university should concern itself with the basic knowledge or disciplines around which technology

develops, and not with the impermanent latest (or yesterday's) technology.

An attempt at developing the 'inter-disciplinary' approach as a palliative to the current spectacle of knowledge-fragmentation might not also take us far. 'Social sciences', 'life sciences', 'earth sciences' and 'environmental sciences' sound very progressive, but by enlarging one's immediate neighbourhood to a little extent, one cannot hope to evade parochialism in knowledge.

Likewise the insistent call for 'practical education' or 'job-oriented education' may very well prove to be no more than a popular slogan. In our time of galloping science and technology, we simply do not know what the highly specialised jobs of the future are likely to be. As a former Prime Minister of France, Pierre Mendes France, pointed out some years ago :

"Many things that will be in everyday use by 1980 do not even exist yet ; nor do the materials of which they will be made or the methods by which they will be produced . - "

This would apply as much to complex industrial equipment as to foodstuffs, apparel, children's toys, educational aids, office accessories, gadgets for home, drugs and surgical instruments, and of course, armaments of war. Mendes France continues :

"The boy who learnt a skill in 1850 or in 1900 knew that he would use it all his life. If he went up in the world, then the chances were that he would do so while remaining in the same field, and often in the same enterprise, in which he started. From now on, however, every individual will be expected to acquire two, three or even four skills, perhaps all of them unconnected, between starting work and retiring."

When Gandhiji advocated craft-centered education in 1937, he had in mind the little-changing Indian countryside of his time, and even so he wanted education to be centered in a

basic craft. But in the contemporary technological world we can no more train in a few years the technicians of a life-time. A rigid so-called 'job-oriented education' may actually cause more frustration and viperous helplessness than an education that aims basically at awakening and developing the pupil's diverse speculation. Also, while 'work-experience' is doubtless important in education, it should not be in shackles to a dead curriculum, one more infliction of boredom and irrelevance added to so many others. Within a broad framework of theory, the pupil should be encouraged to learn through doing -- to experiment for himself -- and to adventure boldly into the unknown. Pupils have to acquire, through self-effort as far as possible, the sort of competence and self-confidence that will train them to improvise the necessary specialist skills to meet future contingencies and challenges. What education should thus try to provide is not so much a finished skill valid for life-time (there are no such skills any more), but the energy of body, alacrity of mind and especially the deeper poise of the spirit that will develop the relevant skills as and when required.

Education is usually conceived either as a horizontal spread of numerous 'subjects', 'disciplines' and courses of studies, or as a vertical gradation from nursery, through primary, secondary and collegiate, to post-graduate and advanced research, each of these stages again with its own calibrations. Under the indiscriminate elective system, any three or four entirely unrelated subjects could be artificially thrown together to make a dustheap in the pupil's consciousness. The popular remedy through a broad base of 'general education' and an 'inter-disciplinary' superstructure has not proved a conspicuous success either. In practice, there is a start from some patches of the infinite spread at the base, then the pyramids of specialisation rise steeper and steeper, till the several dizzy eminences glare at one another in impressive incomprehension. Whether inadvertently or by design, this education but promotes isolation and alienation, and not community and communion.

Over three centuries ago, Milton said that a complete and generous education is that which "fits a man to perform justly, skilfully and magnanimously all the offices, both private and public, of peace and war". The circumstances of our technological society are compelling a frantic multiplication of professional skills, and yet all have to be reared on a sound basis laid in school and college by means of an integrally harmonised scheme of education. Neither the horizontal nor the vertical, but the integral, view of education alone holds the key to success. Indeed, with integral knowledge, the centre is everywhere, and the circumference is nowhere. From any point whatsoever there could –and should –surge a spiralling sweep of integral consciousness as in Blake's inspiring vision :

To see a world in a grain of sand,
And heaven in a wild flower,
Hold infinity in the palm of your hand,
And eternity in an hour.

It is not enough to read Botany in relation to Zoology, or Economics in relation to History, or Linguistics in relation to Sociology ; but everything has to be seen in relation to the Whole, the very Ground of Reality. The real remedy, then, for the current spectacle of unbridled specialisation and knowledge-fragmentation is such purposive 'integral' education, education that relates each branch of knowledge to Reality, links all the segments of the felly to the hub of the Wheel. Each of integration ; and the diverse disciplines for the body, mind and soul have to ensure an integral growth of the whole human personality. "Every Life", said C. G. Jung, "is at the bottom the realisation of the whole", and the essential postulates of an integral education would be the unity of matter and spirit in the universe, the unity of matter and spirit in man, and the role of man to enact a visible efflorescence of this integrality, this wholeness, this light and puissance of unity.

Sustained by these postulates, formal education has to aim at helping the pupil to a knowledge of the physical world, the biological world, the world of man's creations and institutions,

and of man himself in his solitariness and sovereign responsibility these being roughly the provinces of the physical, biological and social sciences, and of the delectable realm of the humanities. There is both the need for the horizontal integration of the curriculum year by year so that it may be no mere hotchpotch but a clear and decisive move forward in education ; and there is need also for vertical integration so that each stage of education may be naturally linked to what has gone before and what is to come afterwards —the striving of today being grounded on the achievements of all our yesterdays and pointing to the summits of the future. Besides these two, the horizontal and the vertical, there is the even more important integration of spirit and matter, of the aspiration within and the struggle and victory without. The goal of education is verily to help the pupil to evolve into a noble specimen of the race, a witness to Truth in its fourfold aspects of Love, Knowledge, Power and Beauty. The educational process would simply be the flowering of the human consciousness, ever more intimate and far-reaching till it becomes knowledge, action and realisation in one.

If the real aim of education be such a flowering of the wholeness of human personality, it is the soul within, the true psychic entity, that should be given a chance to take the lead. The essence of the educational problem has been stated as follows by Sri Aurobindo in his treatise, *The Human Cycle* :

each human being is a self-developing soul and the business of both parent and teacher is to enable and to help the child to educate himself, to develop his own intellectual, moral, aesthetic and practical capacities and to grow freely as an organic being, not to be kneaded and pressured into form like an inert plastic material. It is not yet realised what this soul is or that the true secret, whether with child or man, is to help him to find his deeper self, the real psychic entity within. That, if we ever give it a chance to come forward, and still more if we call into the foreground as 'the leader of the march set in our front',

will itself take up most of the business of education out of our hands and develop the capacity of the psychological being towards a realisation of its potentialities of which our present mechanical view of life and man and external routine methods of dealing with them prevent us from having any experience of forming any conception."

In education, therefore, it is of the utmost importance to awaken this veiled and withdrawn soul within as Rama-krishna awakened the inner self of Vivekananda and make it "the leader of the march". Population explosion, knowledge explosion, and the threat of nuclear explosion, all seem to indicate a crisis in human civilisation. Life, knowledge, power all threaten to destroy by their very surfeit. For what is lacking is Love, and Love fails us because our understanding is partial and defective. But for such a fuller understanding a new education centered in the soul or the psychic entity can alone have the key.

In the course of a talk about a decade ago, the Mother of Sri Aurobindo Ashram said that when she viewed what passed for education it was like looking at a greyish wall: a semblance of effort, like shadows playing on a wall, but everything superficial. The wall was hard and impenetrable, it shut out the true light, and there was no door to the beyond. The wall had to be pulled down! There was no other way. The greyish wall the Mother saw—the wall of tamasic solidity, the wall of rajasik resistance, the wall of persisting ignorance—this wall is indeed everywhere and blocks all genuine movements for reform. What is therefore required is a revolutionary breakthrough, a transvaluation of values, a bold restructuring of educational objectives and means of execution. And perhaps the time is now ripe, not just for piecemeal changes but for a radical change and transformation—for no whitewashing of the wall, no curtaining, no measured shift in the angle of vision, will really meet the challenge of the times.

Let us be clear as to what will constitute the right education in the fast-changing global situation of today. A partial,

personal or parochial view of education has to be replaced by an integral view comprising the needs of the individual, nation and all humanity, on the one hand, and addressed, on the other, to the utmost but harmonious development of body, vital, mind and soul, and the mobilisation of the enduring gains of the past, the thrusts of the present and the possibilities of the unfolding future. Here in one sentence Sri Aurobindo covers the whole area of education :

“That alone will be a true and living education
 which helps to bring out to full advantage,
 makes ready for the full purpose and scope of human life,
 all that is in the individual man,
 and which at the same time helps him to enter
 into his right relation with the life, mind and soul
 of the people to which he belongs,
 and with the great total life, mind and soul of humanity
 of which he himself is a unit
 and his people or nation
 a living, a separate and yet inseparable member.”

The Individual should be helped to realise his utmost potentialities ; he should be enabled to find his proper relation with his social group and his nation ; and he should be encouraged to find his true place in the global human community. There is thus a personal, a social (or national) and a global (or racial) dimension to education, and these three should promote a living, evolving and progressively realising dynamic and puissant consciousness

One or two misconceptions may be cleared at the outset. For example, it is a mistaken notion that Para Vidya, the higher spiritual wisdom that dawns on the horizon of soul-awakening should be seen in sharp opposition to Aparā Vidya, the lower knowledge gained through the normal academic curriculum in arts and science. The fact is that, without the light of Para Vidya all Aparā Vidya or false knowledge, is illusory non-knowledge. Humanism itself, unless it undergoes baptism in the waters of spirituality, must prove a partial and limiting,

and ultimately falsifying, experience. The other man is not just a brother, a fellow human being ; fellowship, brotherhood are themselves frail bonds that snap at the first tug of egoistic assertion. The deeper truth is that the other fellow is myself, ourselves—lit by the same spirit within, and marked for the same destiny of transformation from the human to the divine. The best approach to mathematics, physics, chemistry, biology, history, geography, poetry, music, art is to see them all as petals of one flower, notes of a single piece of music, tints of the same apocalyptic rainbow arc or rays that feed the same illumination. Para Vidya is in its essence this constant reiteration and perception of the great bass sustaining the polyphonic symphones. Para Vidya is certainly not an expendable extra, but rather the soul of education without which the body, however attractive in form and rich in raiment, is no better than a show-piece model, if not indeed a decomposing corpse. Not man the individual alone, but human aggregates too, society, community, nation, race have a soul, an evolving soul within, and as, like to like, rapport at the level of the soul is easy to establish, whether between man and man, man and society, or nation and the global human family. On this foundation, and fed from this powerhouse of illumination, all other super-structures and communication systems could be safely reared, and there will be no false lures, no trap-doors, no short-circuiting,

Like the false dichotomy between Para and Aparā Vidya, there is the equally false notion that 'education' can be neatly isolated and quarantined as it were from the thoroughfares and mainstreams of life. But if education were verily progressive self-knowledge, self-gathering, self-discipline, self-unfoldment and self-realisation, education must be co-extensive with life. Whatever one does, one is learning also all the time, one is evolving and growing creepers of consciousness. All life is education, and with the right sense of direction and accent of sincerity and dedication, all life could be Yoga. Life : Education : Yoga — they are the same, only

differing in the intensity of conscious effort, and the determined drive towards individual, collective or global perfection.

If the secret of education is to create conditions under which the pupil can learn by himself and can go on learning learning and applying his knowledge and learning again so that it could be a life-long process of evolution and growth, well, the teacher should be a learner too. In a situation in which pupil and teacher are learners both, education can no more be viewed as a bi-polar phenomenon. Many of our difficulties arise because the social climate in the class-room or lecture-hall is an unnatural asymmetrical arrangement, and a one-sided traffic of words most of the time. In such a system the teacher makes himself a monolithic purveyor of all information and knowledge, as if printed books don't exist at all—and as if students are only magnetic tapes, and not human beings with trembling sensibilities and unknown potentialities of their own.

Besides, under existing conditions, what seems to concern the teacher is the surface mind of the pupil, fed by the sensory impressions and vital impulses and sustained by the bodily frame. But the mind of the pupil, pigmyish Vamana, hides under the surface the Narasimha, Varaha, Kurma and Matsya it has apparently left behind, who although quiescent for the nonce are ready to spring forward to disconcerting if not destructive effect and are also willing to be mobilised for constructive tasks. But why should we stop with Vamana? Beyond Vamana there is the warrior-god Parasurama, the exemplary Prince Rama, the god of the plough Balarama, the tantalising-charmer Krishna, the compassionate Divine the Buddha, and the further incarnation, Kalki the flaming god of the future. This is how Indian myth and legend conveyed the idea of the rivers of the unconscious flowing under surface mind, and the clouds of Unknowing, the lightning leaps of Superconscience floating above the mind as higher mind, illumined mind, intuition, overmind and supermind. Speculating on the piece of work that is man, Hamlet exclaims ;

"How noble in reason ! how infinite in faculty ! in action how like a God !" The aim of our endeavour in education is thus to take hold of the hidden animal with its tamasic and rajasic traits and set it on the path of soul-awakening, purposive effort and sattwik realisation.

We have accordingly to reverse the gear of the current stratified academic specialisation and return to general, or essential, education grounded on spiritual knowledge, Para Vidya, and fostered by the integral discipline of body, vital, mind and soul. Our present ambitious but stereotyped curriculum which is but a veritable slum of miscellaneous odds and ends of information : our practice of straining the memory to unconscionable and unprofitable lengths : our standardised teaching and examinations, our market-place mores and "no-holds-barred" competitive craze for designations, places and credits —in short, the whole ragbag of the discredited education of our time deserves to be thrown overboard. In its place let us encourage the pupil to exploit his innate buoyancy and curiosity and learn largely by his own efforts ; to embark upon projects formulating his own objectives and seeking his own solutions through self-regulated programmes of work-experience ; and to engage in group-activity or co-operative work with his fellows alike, for gaining knowledge and skills and for community involvement and service. Flexibility and dynamism, rather than rigidity and uniformity, should thus be the governing law of the educational process, and the teacher pupil confrontation should be ended by making them both participants in the educational adventure. Exceeding the dichotomies, integral education or Purna Vidya would seize wholeness by the centre, mobilise the diverse faculties and powers, and team them together into a life-long sadhana of continuous aspiration and effort and extension of consciousness.

While no doubt all the world is a school and all life is education, yet the formal school or academy could be a place apart incarnating a high concentration of aspiration and effort — even as a Temple, Church or Mosque is a House of God

charged with an immediacy of presence and power and grace, although the entire universe itself is the House of God's omnipresence, permeated by his power and glory. The two terms in education are (1) the pupil, who seeks knowledge, and (2) God or Truth or God as Truth, the source of all knowledge. The teacher himself is but the link between the two, the channel of communication, the willing paraclete. Quintessential knowledge, like a spring deep under the earth-surface, is already in seed-form within and only awaits release at the appropriate time for completeness of manifestation. Like a mother whose ambience of love fosters child, especially during the first few years of his life, to move from Fish, Tortoise and Boar to Man-Lion and Man, and from stone age man to atomic age and space age man, so too a real teacher, enacting the power of divine love, helps the child's bud of consciousness to open out petal by petal, and to achieve fullness of bloom and ripe fruitfulness in the catalytic environment of the Academy. Where academy and teacher fail to rise to these roles, they are but a trap and a danger to waylay and mislead childhood, boyhood and adolescence.

It is important today that the older pupils should pose certain fundamental questions, and take action in consonance with the formulated answers :

- (1) What kind of human beings do we want to be ?
- (2) What kind of physical and social environment do we want ?
- (3) What kind of global commonwealth do we desire to see established in tomorrow's world, and how best can we hasten that end ?

Parents too may ponder these questions even if it be a little belated, for nobody is too old to re-educate himself. As if answering these questions by implication in the name of future humanity, the Mother has given this prayer to the children of Sri Aurobindo Ashram :

“Make of us the hero warriors we aspire to become.

**May we fight successfully the great battle of the future
that is to be born against the past that seeks to endure :
So that the new things may manifest and we be ready to
receive."**

In other words : Perfect the human instrument into the Platonic Gymnastic fused in music ; fight reaction, cast off all deadwood ; win the battle of the future so that the new may manifest without hindrance, and so that the children of today may prove to be the pioneers and pathfinders of the future. It is not simply a question of acquiring a skill or qualifying for a degree or diploma ; it is rather an adventure to be undertaken, a battle to be fought, before we can hope to win the future. For the hero warriors, however, it will be not so much an outer struggle with conventional or even nuclear weapons, but the far more crucial inner battle of knowledge and new consciousness and self-transformations. Everyone has first to wrestle with the ego's propensity to separativity, selfishness, narrowness, stupidity and fear, put the miserable ego in its place, and bring into the forefront the new behind-the-scenes psychic being which alone is touched with the elemental power of the Spirit. "What sort of human being do I want to be? The answer surely is—"Not a frightened, calculating, cringing, egoistic creature, who pathetically seeks safety (as in Kafka's story) in a burrow of his own making, but a knight-errant of the Spirit, a breaker of old barriers, a hero warrior ready to campaign against all narrowness, ignorance, pettiness and fear, a would-be superman ready to enact freedom and truth and generosity of understanding and disarming self-confidence". If thus the psychic being could be awakened and invoked and installed as "the leader of the march set in our front", this will produce much better results than our current mechanical view of life and our market-place incentives for work and study.

In the modern world dominated by technology, pathological fear and flight from sanity, children alone have a native wisdom which, if only in our own interests, we should protect

and foster. Relative to their age children today are far more intelligent than we are willing to recognise. The sailing ship of old took two years to go round the world, the steamship takes as many months; but the jet plane needs only a day or two, and the orbiting satellite a mere hour. The ecological climate of the nursery has suddenly changed, and recent youth movements like the Hippie revolution seem to indicate clearly a new leap in the evolving human consciousness. Recapitulating a conversation with a Hippie group in Copenhagen in 1967, Jobst Muhling noted some of their findings during their experiments in unconventional living .

“God, the universe and I are one If we see the face of God, we know what we have to know. And we are free, free from ourselves . Bliss is the highest human value . . .

Love is not sex. Sex is stupid . . . There is only one true love, the love of God. And when I love God I love everything in this universe not for its own sake but because God is in it all.”

And Jobst Muhling's comment is that such Hippie groups —or para-social youth have “awakened from the apathy of the existential nihilism Their aim is a world united in love”. But aside from the Hippie and similar groups, even many in our regular schools and colleges are heirs to a new buoyancy and unconventionality which seem to put them in a position of psychological vantage compared to their parents and teachers. It can almost be said that the average parent and teacher, caught between the past and the future, feel helpless to decide between the conflicting pulls, and are more prone to a dead conservatism than to an adventurous experimentation. Parental ambitions and the evils of the educational system only too often and too early infect the children, and they presently become a prey to the same pettifogging calculations and schizo-phrenic self-torturings. Between the ‘home’ and the ‘academy’ there lie the political market-place, the

mainstreet and superbazar of extravagance and waste, and the bylanes of entertainment and abuse. Do we give a chance at all to our children to grow as they might, as they should, and become a race of supermen. Dr. Buckminster Fuller has said that children have a spontaneous curiosity about the entire universe that is steadily undermined by man's modern drive towards specialisation. Our super-civilised methods of education are in one sense so successful that, in the psychiatrist R. D. Laing's words,

"by the time the new human being is fifteen or so, we are left with a being like ourselves. A half-crazed creature, more or less adjusted to a mad world. This is normality in our present age"

Parents, as a rule, almost desire that their children should be put perfect reflections of themselves, only (if possible) rather more successful, though in the same line. But such parental anxiety for a mere (or more spectacular) continuation of the family 'traditions' must also mean a denial of the evolutionary drive, even a wanton obstruction to the native flowering of consciousness. On the contrary, the child has the right to grow in his own way, responding to the urges of his own daemon, careering on the hero warrior's path and pressing on towards the beckoning goal. An industrialist's son may grow into an authentic poet, a musician's son into a master builder, and a carpenter's into a social engineer. A vocation is as it were God-given and soul-sustained, while a profession is usually a matter of mental contrivance and is in shackles to social compulsions. On the other hand, to be a 'hero warrior' is to be free, seraphically and electrically free: from all mental constructions of what is 'decent' and 'proper'; free from quantitative evaluations; and, above all, free from the commandments of egoistic likes and dislikes. And how is this to be brought about? To quote R. D. Laing again:

"True sanity entails in one way or another the dissolution of the normal ego, that false self competently adjusted to our alienated social reality - the emergence of the

inner archetypal mediators of divine power and through this death a rebirth, and the eventual re-establishment of a new kind of ego-functioning, the ego now being the servant of the divine, no longer its betrayer."

An environment is to be created, an ambience provided, that will facilitate the child's discovering and activating the psychic being within, and thereby beyonding the ego's purblind assertiveness, establishing rapport with the soul or the psychic being in others, and progressively losing all sense of separativity, having become one with the universal spirit. It may be difficult for adults to accomplish this feat, but not quite so difficult for children. But young or old, "the evocation of this real man within", says Sri Aurobindo, "is the right object of education and indeed of all human life". It is in effectively transcending his ego that the individual truly finds himself, and also sights the common Ground between him and others and all mankind and all Nature. The school atmosphere with intimations of the Divine presence, the dedicated love of the teacher that gently opens the windows of the pupil's psychic self, the stimulating fellowship of the other pupils, the unending romance of life, the constant play of curiosity, the thrilled satisfaction of doing things on one's own or by spontaneous co-operative effort—these are among the elements of the educational engineering that will temper and transform our children into the 'hero warriors' of tomorrow's world.

This adventure of education must of course ultimately comprehend the individual, social and global perspectives. Also, with reversible movements of consciousness, the new man will be able at one and the same time to see the world in himself and see himself in the world. In the Mother's words :

"The starting-point is to seek in oneself that which is independent of the body and the circumstances of life, which is not born of the mental formation that you have been given, the language you speak, the habits and customs of the environment in which you live. You

must find, in the depths of your being, that which carries in it the sense of universality, limitless expansion, termless continuity. Then you decentralise, spread out, enlarge yourself; you begin to live in everything and in all things; the barriers separating individuals from each other break down. You think in their thoughts, vibrate in their sensations, you feel in their feelings, you live in the life of all. What seemed inert suddenly becomes full of life, stones quicken, plants feel and will and suffer, animals speak in a language more or less inarticulate, but clear and expressive; everything is animated with a marvellous consciousness without time and limit."

The supreme need, then, is to have courage enough to revolutionise our ends and means as in certain pilot projects like the Sri Aurobindo Ashram and Auroville educational institutions where the emphasis is on education for growth of consciousness, education for tomorrow's free world, and, hopefully, education for man-transformation and world-transformation.

But aside from the pilot projects scattered all over the world, how about the numberless other schools and colleges? How about the hundreds of thousands of schools in India: the thousands of colleges; the hundred or more universities; and the large number of polytechnics and other professional institutions? How is the message of integral education to be carried to them all? Modernisation of the curriculum, elimination of deadwood, making own rather than be content with swallowing tabloid knowledge, encouraging pupils to cultivate a lively interest in the neighbourhood, promoting healthy teacher-pupil dialogues, all this will do a lot of good to our education. Yet all will fail in the end unless the psychic revolution also takes place: enlargement of consciousness, the sense of the others, and the living perception of the deeper unity.

After the atomic revolution in physics and the no less fateful revolution in molecular biology, it is no more possible to swear by the old compartmentalised categories of a generation or two ago. Like these 'breakthroughs' in the physical and biological sciences, a 'breakthrough' in the mental realm too is perhaps imminent. Perhaps the revolution is already in progress, although we are not as yet aware of its exact contours and direction of movement. Like the atomic nucleus, or the genetic code, the human ego—so long the centre and circumference of human effort and achievement—too must crack, and the psychic being win its release and see, hear, feel, aspire, plan, achieve and enjoy with a freedom and certitude and power undreamt of before. And man the mental being must race beyond his present limitations and win the sovereignty of an integral Truth-Consciousness. It must all mean a new dimension of experience, a new plenitude of understanding and power, and a new foundation for ordaining an infinitely varied yet innately harmonious play of life.

These large hopes—with some significant present realisations—nonwithstanding, we must nevertheless be reconciled perhaps to the persistence of deadening convention and conformity in the overwhelming majority of educational institutions here and abroad for some time to come. But even in these some reforms are immediately practicable. The content of the compulsory course may be drastically reduced (by casting aside the dead survivals), and the free time so released may be made available to pupils for studies or projects of their own. This is already being done in countries like Sweden. Secondly, in the regular curriculum a much wider real choice (not just Hobson's choice) may be offered to suit the varied aptitudes and preferences of the pupils. Thirdly, the teacher may adopt more and more the role of friend, adviser, senior collaborator and fellow-adventurer, rather than that of salesman, examiner, policeman and magistrate. Fourthly, the ideal all round excellence may be placed before the pupils, but viewed less and less in terms of grades, rank marks and

distinctions, and more and more as the efflorescence of personality in its wholeness and wholesomeness. Fifthly, and above all, there may be set apart daily some minutes of silence, and an hour of meditation or silent self-introspection every week, when the pupils are encouraged to cultivate the divine seeing eye that looks deep into the innermost truth of things.

The impact of formal knowledge—the absorption in ‘projects’—the rhythm of the body’s movements in sport or athletics—the give and take of intellectual debate—the leap of wonder and surmise on encountering the unexpected in life or Nature; all this may profitably remain in the educational landscape. But what the attempt to give an inner orientation to education may be expected to achieve is an accession of keenness, freshness, vitality, open-heartedness and clarity of vision. With the new seeing eye, the pupil moves with a poise and purpose, sees more and understands more, and finds all knowledge and experience all information and indices, not just negotiable instruments at the examination-mart or employment-exchange, but marvels of revelation, illumination and affirmation. Such of the pupils—at first they may be no more than a few in a school or college—who have crossed the Rubicon and cracked their ego-shell will shine with the flame of freedom in their souls and the light of knowledge in their eyes, and they will also be ready to engage in a God’s labour of danger and difficulty for the sheet joy of it. These are the ‘hero warriors’ who will win the future and make it safe for us. But these are no figments of fancy, no mere Utopian exercises, for Sri Aurobindo has actually seen them and in mantric incantation he summons them to our presence :

I saw the Omnipotent’s flaming pioneers
Over the heavenly verge which turns towards life
Come crowding down the amber stairs of birth ;
Forerunners of a divine multitude
I saw them cross the twilight of an age,
The sun-eyed children of a marvellous dawn,

The great creators with wide brows of calm,
The massive barrier-breakers of the world
And wrestlers with destiny in her lists of will,
The labourers in the quarries of the gods,
The messengers of the Incommunicable,
The architects of immortality.

May our schools, colleges and universities become in the
fulness of time the nurseries of this new race of 'hero warriors'
whose tread

one day shall change the suffering earth
And justify the light on Nature's face.

WHO EDUCATES AND FOR WHAT ?

R. R. DIWAKAR

By no stretch of imagination can I be called an educator nor one competent to write about education, except that I belong to the category of the 'educated' and am deeply concerned as a citizen in the education of our younger generation. I am a product of the Swadeshi Movement (1905-10) and have been educated in what were called national and semi-national institutions which in addition to normal education, aimed at giving us a grounding in love of our country and service of our fellowmen. I have also served for brief periods as teacher and professor in national schools and colleges.

What I am writing about education here may be branded as 'negative'. But today not a day passes without some high dignitary or a school teacher passing very uncomplimentary remarks about our educational system and its utter inadequacy in meeting the needs of those who seek education as well as the challenges of the day. And yet no important changes have been forthcoming in this field during the last quarter of a century, while all the time, illiteracy, unemployment, poverty, urbanisation, tensions, pollution, drink addiction, and other evils are growing apace along with unwanted population. At least some of these could be forestalled by deliberate steps taken to mould the minds of the young in the schools and colleges of the country and by proper use of other media of communication. Healthy inhibitions as well as creative aspirations when sown deep in young minds have every chance of producing better men and women than if these things are neglected at the impressionable age.

I may take the liberty of narrating a small incident here which speaks volumes and is an incisive reflection on our education and specially university education. I was the Chairman of the All-India Gandhi Smarak Nidhi, and Dr. C. D.

Deshmukh was the Chairman of the University Grants Commission. I approached him with a proposal that the Nidhi would be willing to donate a lakh of rupees to each university for a Gandhi Bhavan in its campus, provided the university undertook to run it as a centre for Gandhian studies and social service on Gandhian lines. Dr. Deshmukh immediately appreciated the offer and while accepting the same, he made some significant observations to the following effect : we have declared ourselves as a secular State and naturally all religious education and much of moral teaching which goes with it has no place in our educational system. Here was Gandhi who was the very embodiment of the spirit of true religion and high moral standards in public as well as private life. What can be more inspiring than a Gandhi Bhavan on the campus where Gandhian studies can be promoted and social service undertaken in the Gandhian spirit ? So, the U. G. C. would not only be glad to accept the proposal, but would offer half the amount for each Gandhi Bhavan !

I could see that here was a Chairman with an insight into the basic cultural need of the younger generation which entered the portals of our universities.

Being an elderly person who had had a long and varied career in public and social service, many are the people who approach me for recommendation for admission of their children in reputed schools and colleges right from the nursery to the university level. When I ask those who approach me as to why they require such recommendations, they say merit alone does not count, nor does money count (such institutions are costly) ; some recommendation also is necessary. In certain institutions, children for admission have to be registered years before and wait in queue !

Again when a boy or girl wants to take up a certain line of college education, he or she cannot be sure of admission in that particular line though fully qualified for it. So, the student concerned has to knock at the doors, say of the medical, engineering, and agricultural colleges and take up

the line available, irrespective of liking, natural tendency and capacity. That is the kind of ad hoc and haphazard engineering that we do with the children and the young talent potential of our country. Even so, we have no jobs for all who qualify themselves; what follows is long, long waiting and perhaps frustration.

Now what for are we educating the thirty per cent seventy per cent being illiterate (420 million)—of course, it is for building this great historic nation, politically into a socialistic democratic republic, socially into a just, equal, casteless and classless integrated community, economically into a viable, hardworking, skilled group of people, experts in science and technology who can stand by themselves in all essentials and culturally into a nation of men and women who carry with them this culture of many millenia with ease and add to it all that is of worth, of beauty and dignity in other peoples with whom they come in contact. If this is the general aim, it is not enough to have only knowledge and information, it is not enough only to train the intellect in logic-chopping; we must cultivate and discipline our emotional life and aesthetic talents, and above all we must have the will to do or die, and high standards rooted in the spiritual heritage which is our proudest possession.

Does our present education and the system that is current accommodate all these aims? If not, in what are we deficient? Shall we not make a bold attempt to see that these aims are laid down as the foundation of our system of education?

Now let us see as to who is educating our children. It may be said, that broadly speaking, heredity (none today can deny genetic influence), the home, the environment, and the school-college are the influences which play on the growing minds of our young people. However, when we speak of 'education' as a subject, we usually connote only the educational machinery that is busy from the nursery institutions to the post-graduate classes.

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Now let us see what is the part played by these institutions which have the students with them only a few hours of the day. Let us leave aside for the present the very few residential schools and colleges where the students are in the charge of the institutions for most part of the day and the major part of the year. Can we vouch that the schools and colleges who have the students at their disposal for a few hours during the day and that too mainly for intellectual exercise and development, are really 'educating' them in the real sense of the term, namely, bringing out and developing the potentialities, the qualities of head, heart and hand of the students? Bold and daring would be the teacher and the school which can say that the student is really and wholly being educated by him or by the school.

If we leave aside the home influences, it is really several powerful influences other than the schools and colleges which are 'educating' our children. The whole world of comics and cartoons which the adult does not easily understand, absorbs the child so much that one is amazed at it. The next 'educator' is the newspaper, and innumerable story books and later, sensational novels. The third educator is the radio, and then the most powerful mass medium, the film; and of course, the TV, wherever it has been introduced.

These media of communication are the effective educators of our children because of the live contact children have with them, the massive and varied fare that they serve, and the emotions which they arouse and satisfy. Unless we fully survey and study these media and the 'education' they are giving, and unless we realise the limitations of the school-college education, our view of 'education' as a subject for moulding the minds of the children of our times would be very partial and halting. If 'education' is to be full and complete and effective, all the mass-media will have to be marshalled and made to serve the aims of education and thus lead to a situation in which we achieve what we want.

EDUCATION NO TECHNOLOGY

T. K. MAHADEVAN

Theories of education have plagued man for centuries. I think the time has come to stop theorizing and to get down to the business in hand. Anyone with his eyes and ears open will know what that business is. Let me put it in the form of two questions. First, what part has education played in bringing the human family to its present pass? Secondly, what can education do to retrieve it from that mess?

I know this book is about education *in India*. But education is not particularly an Indian problem: it is a worldwide one. And in any case, no nation is an island—not any more. Like everywhere else, we too are constantly exposed to the winds of change that blow in from all directions. They influence our thinking no end. In addition, we carry the burden of our own ancient past. When these two clash, what results is not a salubrious ambience—as some might want to believe—but a debilitating ambivalence.

Let me therefore make a point of departure and seek answers to my two questions, not as they may relate to India—indeed, such a relationship hardly exists—but in the larger human context. For if there is a crisis in education its dimensions are bound to be global. Anything of a lesser magnitude—national, subcontinental, regional—could be a problem, a predicament or whatever, but certainly not a *crisis*. In this last quarter of the twentieth century, a crisis has to be global or it is nothing.

In global terms, then, I want to put forward the view that the sickness of the spirit with which we are presently assailed, began when education ceased to be a philosophy and became a technology, when it was transmogrified from a way of living into a way of doing. Using Hindu scriptural analogy, one may describe the transition as a degeneration from the Upanishadic

injunction of "Satyam vada, dharmam chara" ("Speak" what is true, do what is good) to the amazing pronouncement of the *Bhagavad-gita* that "Yoga is skill in action" (Yogah karmasu kaushalam").

To me, education is simply another name for one's philosophy of life. To be worth the name, it must fit one to a life suffused with truth, goodness and beauty. If we understand it in the narrow sense of teaching and being taught—which, of course, is not the sense in which I understand education—then it could be taken to mean the learning of discrimination.

Discrimination between what? Broadly, between good and evil. But the Upanishad puts it, more precisely, as between what is beneficial in the long run and what is attractive in the short run. It uses the word "shreyas" for the former and "preyas" for the latter.

What the Upanishad is hinting at is simply the eternal duel in the human heart. Any man or woman who fails to resolve this duel early in life not at the fag end" can hardly be said to be "educated". I would elaborate the Upanishad text somewhat on these lines; in our life's journey, two wenches accost us on the road. Of them Shreyas is serenely beautiful, but Preyas is voluptuous and much more bewitching. Which of them shall we choose? If we have the Long Vision, we will turn away from the blandishments of Preyas. This is what wisdom is all about and the goal of education is to attain it by the shortest cut.

It is all as simple as that. No theory or concept here, nor any involved techniques. Education is simply the attainment of viveka—the power to sift what is true from what is false, what is enduring from what is transitory. And not merely the power to sift; for there must follow the will to resist and reject the bauble of temptation. Otherwise we become victims of the Faustian dilemma and may succumb to the Mephistophelian choice. Once we allow this to happen, there is left little chance of redemption. And what is not redemptive is no education.

But, of course, viveka is not the end of the road. Beyond viveka is vairagya, the power of detachment, the courage to opt out. Anyone who has not cultivated such courage is by no means a truly educated man. He has a subservient mind. He is a slave to the myths of his time.

The Upanishad clothes the idea in a lovely metaphor. Upon a tree laden with fruit are seated two birds of exquisite plumage. They are friends: and yet, while one of them is eating the fruit, the other looks away unconcerned. This ability to look away rather than look askance—which in any case is a spurious posture—is another of the gifts that flow from true education. If you cannot take your eyes off the allurements of life, if you take a secret relish in your stockpile of artificially induced wants and in watching it grow, then surely there is something wrong with the way you were educated.

What I am trying to emphasize is that in education it is not the technique, the method, the process, the structure that is important; what is important is the content, the sense of direction, the value-system on which it is based, the underlying philosophy. Take care of these and the method will take care of itself. What is wrong with modern man is that he is the willing victim of a wild cat, runaway technological system. He is enamoured of its mountain of successes, some of them too breathtaking for words, and is enticed into what I would call the how fixation. Unlike his ancestors, who brooded over the why, the whither and the wherefor of life, he is fixated on the how of things. The gadgetry of human ingenuity fascinates him no end. Every new piece of information, however trivial and useless, goes to his head. In a word, we are a race of intoxicated amnesiacs, incapable of looking beyond the tip of our noses.

As another enchanting Upanishadic parable has it, whenever the thunder rumbles da-da-da—each da connoting a different categorical imperative, namely, dama, dana, daya—what you are hearing is the essence of true education. An

education that does not induce in you this triple accomplishment—shall we call it *Triplos Homo Sapiens* ?—of restraint, generosity, compassion, what is it but a thing of shreds and patches ? Such an education may enable you to walk in space, potter about on the moon, and do a hundred other idiotic things of a like kind—but make a man of you it will not.

For the essence of manhood manliness, if you like—is that you remain the Chooser. The moment you surrender your freedom of choice, you are no longer a man ; you are a puppet. And what are we today but puppets in the hands of the megamachine—mere drones in the megalopolitan beehives ? Here be those strange gentlemen called power brokers and those strange gadgets called computers. These are the ones—some human like us, others almost human but with occasional traits of the superman—which decide everything for us ; our style of life, our values and ideals, what will-o'-the-wisps we should chase after, what sort of idle curiosities we should cultivate, and so on to doomsday.

When you pull down the props, the curtains, the scaffolding and look for the platform upon which this death-dance of civilization is being staged, what do you find ? Our wrong-headed educational system, of course ! Ah, the word “system”—there you have the villain of the piece. Education as technology. Not the what but the how.

We are always asking the wrong kind of questions. And a civilization is fashioned out of the questions one asks oneself. We ask : How shall we colonize Mars and Venus ? Instead, we should be asking : Do we need to colonize (and eventually desecrate) these distant planets ? Isn't our beautiful Earth-mother the right home for us ?

The first question springs from the power-impulse in man, or what one may call a wrong-headed manliness. It springs from an over-accumulation of information. This in turn compels over-specialization, so that the field in which an individual could hope to be a topdog is narrowed to the breadth of a woman's hair. It is not realized that this lust for

conquest—whether the object is the arid moon or the chairmanship of a multinational corporation or the Oval Office in the White House—has an inborn tendency to turn in upon itself and to be self-destructive in the end.

When we ask ourselves the other questions, we are where we ought to be—at the level of human beings. No longer parading as supermen or playing the game of oneupmanship, we are then full of that quality which comes from real education—the quality of humility. Said the Upanishad : “Pandityam nirvidya balyena tishthaset” (“After one has acquired one’s mead of knowledge, one must live like a child).”

Humility implies moderation. Enough unto the day is the evil thereof. More, it implies an awareness of mortal limits. Not simply our corporeal limits—disease, degeneration, death ; not simply the limits of our psyche—senescence, the essentially hallucinatory nature of our ideas and ideals, the schizoid moral drag within ourselves (what may be called the Hamlet syndrome) ; but an awareness of the kind that is summed up in that homely injunction : “Ati sarvatra varjayet” (“Eschew excess in all things and at all times.”)

The Upanishad relates how over curious neophytes were reined back with the warning : “Ati prashnan pricchasi” (“You are asking questions far in excess of your needs.”) Not neophytes alone. Gargi was no neophyte. She was an earnest inquirer, perhaps a little too zealous. And the sage Yajnavalkya had to pull her up with that classic report : “Gargi, ma atiprakshih ; ma te murdha vyapaptat :” (“Good god, Gargi, if you go on at this rate, asking questions for which mortal man has no answers, I fear your head will just roll off your shoulders !”)

Yes, I am convinced that we shall have to retrace our steps and go back to that Upanishadic orientation. Not necessarily the same content—oh no ! But that ancient orientation is hard to improve upon. A man-centred education ; an earth-centred education ; an education that does

not forget our subservience to the all-pervasive terror of Time. "Kalah pachati bhutani", said the *Mahabharata*. The awareness that we are just helpless creatures being cooked in the cauldron of Time.

It would be wrong to assume that what I am suggesting is a simplistic needs-centred education. No, man does not live by bread alone. His wants have a place in the scheme of things. And what is civilization but a process of creating wants and fulfilling them? But within limits. Not only man's wants—those little imponderables that add up to what is called the "quality of life"—but his needs as well must be subjected to the rigid law of limits. Man's place is to be securely in the cockpit, in full command of the situation. The alternative is the macabre drama of hijacking!

But the kind of education I have fantasied about is unthinkable on an overcrowded planet in which the baby-boom seems unamenable to all man's ingenuity. What then shall we do? If you run a thorn, said Ramakrishna, you use another thorn to prise it out: and then you throw away both of them. Since wrong-headed education, by breeding the ogre of technology, has brought us to our present pass, we need to use the cure of a right-minded education. We need to return to truth—okay, forget truth. We need to return to self-restraint okay, forget self-restraint. I throw up my hands in despair. Ah, but there is one thing we *can* do—realize that we are men, not gods; that there are clear limits beyond which we dare not go.

Can't we even do this? Then we are done for. Amen.

THE FOUNDATIONS OF THE MODERN EDUCATIONAL SYSTEM IN INDIA

SURESH CHANDRA GHOSH

The Indian educational system is colonial in origin and development. Despite the appointment of three Commissions within three decades since the attainment of independence by India to renovate and revamp the colonial system of education to suit national needs and aspirations, the education system which we have today is basically the same as it was set up in 1854. In that year, Sir Charles Wood, the President of the Board of Control, sent a celebrated despatch to Dalhousie, the Governor-General of India, delineating the policy of the British *Raj* towards the education of the people of India. The despatch for the first time set up universities in Calcutta, Bombay and Madras, and created Departments of Public Instruction in the British Provinces and provided for grants-in-aid to private academic institutions through a system of inspections.

The story of the development of the British *Raj's* policy towards education of the people of India which took its final shape in the Educational Despatch of 1854 is very interesting and for this one must look more to India than to England. A study of the *Private Papers* of Sir Charles Wood, the President of the Board of Control for India during 1853-55, reveals that Wood was requested by the East India House to frame a general scheme for education applicable to the whole of India, which could be put in force with regard to local circumstances by the Government of the several Presidencies, in "a proposed PC"—a practice ultimately leading to the formation of a despatch to India. The occasion for this arose from the discussion which took place in Parliament relating to the Act for the future Government of India when great interest was expressed on the subject of education and a strong desire manifested for its extension and improvement.

' With a view to give effect to these feelings and wishes'' the East India House supplied Wood with all the necessary materials for framing a comprehensive policy on education but told him that "it would not be necessary for the purpose of effecting this important object that the system hitherto acted on, differing greatly as it does in detail in the several Presidencies, should undergo any great or violent change, but rather that the object should be sought by an extension of that system, in some directions, and by the use and encouragement of those Educational Establishments unconnected with Government, which have found much favour, with the general community, but which have hitherto received no countenance or support from the State''. In this connection the East India House particularly recommended to Wood's consideration Thomason's system of vernacular education :

With regard to the village schools the plan already acted on with success in the N. W. Provinces and in Bombay assisting and encouraging the efforts of the people themselves for the improvement of existing schools should be adhered to ; and there seems no reason to doubt that this mode of proceeding will be found adequately to the end in view.

The East India House which supplied the materials to Wood obtained these from Dalhousie, the Governor-General of India, during 1848-1856. Wood's Secretary, later Lord Northbrook, went through the materials carefully and jotted down for him the following main-points :

The general result of the information showed that in the North Western Provinces alone was there anything approaching to a systematic scheme for educating or improving the education of the people.

That in Bengal and in the neighbourhood of the other Presidency Towns, there was a considerable demand for English—which had been responded to by the Government.

That wherever practical education had been attempted it had been most successful and that a considerable private agency might be taken advantage of if grants-in-aid were sanctioned.

There was ample information from which to draw up a general scheme - and to make Native Education an integral part of the ordinary administration in India.

Since the receipt of the request from the East India House and the sittings of the Lord Committee on Education from May to July 1853, Wood had been thinking of making some positive steps in the field of education. It was indeed a very difficult task for one who had no direct acquaintance with the socio-economic life of the country concerned to draw a general plan for education for a vast country like India. In a letter to James Marshman, the editor of the *Friend of India*, Wood confessed this difficulty : "I confess that I do not see my way as yet..... How we could embark on so gigantic an undertaking !" He had therefore to be kept well-informed about educational developments in India and was forced to depend on others directly connected with the educational developments in India when compiling the Education Despatch of 1854 which laid the foundations of the modern educational system in India.

Wood first started with an examination of the witnesses who submitted their evidences at the sittings of the Lord Committee on Education from May to July 1853. They included important personalities like Dr. Alexander Duff, the missionary who had initiated the move for better education in India, C.E. Trevelyan who wrote *On the Education of the People of India*, C. H. Cameron and James Marshman. In August he also wrote to Dalhousie :

I am also a good deal at sea in education. I have had no time to work into it myself and I don't see anybody who can give me a very unbiased opinion for I shall be the more obliged to you for enlightening me about it. I should wish you to desire somebody to prepare a report

showing existing matters as they are –and also what is feasible in the way of extension.

In reply in October, Dalhousie told him that for education he would find his complete printed reports for everything for many years past in India House and in the Board Library. They would give him a complete view of education. He also required him to consult Trevelyan, "a pandit upon education and will at once point out" what he wanted. And finally he added, "if more is required and you will describe fully what you wish I will endeavour to procure it for you."

In November 1853 Dalhousie further wrote to Wood about "a very large proposal for native education in the three divisions of the Presidency of Bengal" and other proposals for a General College which were "on their way through the Government of India." These proposals were for extending Thomason's system of vernacular education to the rest of the North Western Provinces, Bengal and the Punjab and for the establishment of the Presidency College of Calcutta. He had already written to the Court for their sanction to these proposals. When Dalhousie learnt that Wood had sent to India with the sanction of the Home Government "a draft on education" giving a general scheme for India, he hastened to write to him :

I shall be very happy to receive your despatch on Education. In November 1853 I sent home a proposal for a complete system of Vernacular Education for the North West Provinces, the Punjab, and Bengal. The receipt of it has never been acknowledged.

But when Dalhousie received the Education Despatch, he was far from being happy. As he recorded in his Diary on 12 October, 1954 painfully :

At the close of last year a despatch was sent to the Court proposing the immediate extension of Mr. Thomason's system of Vernacular Education to all the districts in the North West Provinces. At the same time

a similar educational system was proposed for the Punjab, and the whole of the Lower Provinces. The Court have never up to this time thought proper even to acknowledge this despatch, and in the mean time they have sent out a mission, laying down a complete scheme of general education for all India; in which they not only do not enquire what the Government of India has effected, but actually represent what they have done as still left undone.

Indeed Wood was out to take the whole credit for making the Education Despatch which was fed heavily by a supply of materials concerning educational experiments in India by Dalhousie. Though in a letter to Dalhousie he named the persons he had consulted in making the Despatch, in another to Colvile, Dalhousie's Legislative Councillor and Law Commissioner, he boasted, "I hope to have laid the foundation of a great improvement in the condition of the natives of our Indian territories."

It was Wood's consciousness that Dalhousie was unjustly deprived of a share in the credit for the Education Despatch that led him to make a vain attempt to soothe his feelings :

You seem, as you say, to have fairly done your best as to Education. We have, I think, done ours. We approve all you have proposed—you must execute all that we have directed. I made my statement [in the House of Commons] last night and the Education Scheme was loudly and proudly approved and we were promised that our names should be handed down together as renovator of India. What prospects of immortality !

Dalhousie's feelings were, however, far from being soothed. As he recorded rather bitterly in his *Diary* .

The Education despatch is a mere clap-trap put forth to the House of Commons by Sir Charles Wood ; whereby he seeks to filch for himself the whole credit of all that has been, or is to be, done ; thus unduly detracting

from the credit which fairly belongs to the Government of India and to the local administration.

Dalhousie, however, did not allow his personal feeling to stand in the way of the implementation of provisions of the Despatch, which opened an era of "Anglo-Vernacular educational epoch" in the history of Indian education. He realized that "it contained, a scheme of education for all India, far wider and more comprehensive than the local or the Supreme Governments would have ventured to suggest. It left nothing to be desired." Its implementation indeed would be a "tough job", but he assured Wood that he would have "the cordial exertions of us all" in the determination to put the measures into effect. In execution of the instructions of the Court he sought the assistance of those experienced in educational matters such as the Lt. Governor of Bengal, Halliday, the Legislative Council Member, Mr. Grant and the President of the Mr. Council of Education, Mr. Colville.

Dalhousie analysed the subject of the Despatch under three principal heads: (1) Machinery for managing the Department of Education, (2) Establishment of University, and (3) Grants-in-aid, and he proceeded to submit measures under each of them separately. Since, in order to save time, the Court had actually authorised Madras and Bombay to make provisional arrangements, which were to be reported to the Government of India for approval and sanction, his measures were mostly confined to Bengal and the North Western Provinces.

Dalhousie suggested that in each Governorship and Lt. Governorship an officer should be appointed who was to be called the Director of Public Instruction to supervise the Department of Education. His salary should not exceed Rs. 3,000 a month but if it was fixed at less than Rs. 3,000 a month, he would be entitled to a gradual increase until it reached that sum so as to retain the services of a competent officer for a considerable time. There should be four Inspectors for Bengal on salaries varying from

Rs. 500 to Rs. 1,500 a month and two for the North Western Provinces on salaries of Rs. 800 to Rs. 1,200 a month. The Inspectors were to play an important part in the administration of the Department of Education since the success or failure of the system of grants-in-aid and the well-being of the Government and private schools and colleges would depend upon their vigilance and efficiency. As the Government of Bombay had not yet submitted any scheme, it would be subject to the measure for Bengal and the North Western Provinces. Dalhousie also extended this system to Madras which had submitted a different scheme—an Educational Secretary to the Government on a salary of Rs. 3,333 a month, an Under-Secretary and six Inspectors on Rs. 1,350 a month - in order to introduce uniformity and economy in the administration of the Department of Education.

The next practical step was the establishment of University. Here Dalhousie noted an ambiguity in the Despatch. Judging from the expressions as well as from the whole purport of the Despatch it could be supposed that the establishment of the University, like all other measures suggested or directed in the document, was to be carried into effect at once by the Governor-General-in-Council. More so because the University in its examinations, its connection with and superintendence over affiliated institutions, its power of making rules for the whole (subject to the approval of the Government), and its function of giving degrees, seemed to be almost essential to the vital energy of the new system as laid down in the Despatch. Therefore, the most reasonable and right course to adopt would be to introduce a Bill in the Legislative Council (in analogy with the course pursued in the establishment of London University) to incorporate the University, and also to name and appoint the Chancellor, Vice Chancellor and Fellows and provide for filling subsequent vacancies in their numbers. But the wording of paragraph 33 in the Despatch precluded him from taking this action. As he said :

My first impression on receiving the Despatch undoubtedly was, that it was the wish of the Honourable

Court that the Government of India should proceed to the establishment of the Universities, simultaneously with the other charges which were authorized in the Despatch. The general terms of that document and casual expressions contained in other letters from the Honourable Court still seem to favour that interpretation. It is the one which my own wishes would incline me to adopt, and I am most reluctant to surrender it. But the language of the 33 paragraphs is so explicit and precise : it so distinctly requires the Government of India to report to the Honourable Court with reference to the proposed Universities upon the best method of procedure with a view to their incorporation by Acts of the Legislative Council of India, and it differs markedly from the form of expression employed in Para. 20, that I can find no escape from the approach or reporting to the Honourable Court our recommendations respecting the proposed universities before we proceed to give effect to them.

He therefore recommended that the Governor-General of Bengal should act provisionally as the Chancellor of Calcutta University and that the members of his Executive Council as well as the European and Indian members of the Council of Education should be its Fellows. He also recommended a list of persons who would constitute 'the Senatus' and asked the Bombay Government to submit such a list to him. The Senate of each university should frame the rules for application for affiliation by the institutions, for examinations and for the conferring of degrees and honours. There should be two degrees in each of the subjects, viz., Literature, Mathematics, Science, Law, Civil Engineering and Medicine. On the taking of each degree the student should have, as in London University, an opportunity of taking honours and those who did not avail themselves of those opportunities would be tempted by the second degree to carry their education beyond the low standard of the common degree as contemplated in the Despatch. It also suggested the institution of

Professorships of Law, Civil Engineering, the Vernacular and the Learned Languages of India. But in Calcutta, since they already existed at the Hindu College and would be established at the Presidency College or at the Civil Engineering College, the University of Calcutta should be, according to the strict model of the London University, confined to the functions for examining and giving degrees.

Dalhousie then proceeded to submit measures to carry out the instructions of the Court relating to grants-in-aid. The instructions were so sufficient that Dalhousie found little room for "much remarks". The Despatch said that rules were to be framed for the administration of the grants, and the framing of these rules would probably be best done by the several Local Governments with the assistance of their respective Heads of the Department of Education and, when framed, they were to be submitted to the Government of India for approval. They were to be based entirely on non-interference with the religious instruction conveyed in the schools assisted. The grants were to be given, so far as the requirements of districts and funds at disposal permitted, to all schools which gave a good secular education and were under permanent local managements. No grants would be given to schools, except normal ones, which did not require from their pupils a fee for specific objects in preference to simple pecuniary grants for general expenses. The specific objects were stated to be, augmentation of salaries of head teachers, supply of junior teachers, foundation of scholarship, erecting or repairing school houses, and provision of books. The amount and continuance of assistance would depend on the reports of the Government Inspectors. The effect of these grants should be, in no case, the substitution of public for private expenditure but the increase and improvement of education.

After making various observations which would guide the Local Governments in the framing of the rules for grants-in-aid, Dalhousie pointed out that they ought not be fettered by the necessity for referring every individual proposal for a grants-in-

aid to the Supreme Government. It would be much better in every way that certain rules having been prepared by the Local Governments regarding grants-in-aid and having received the confirmation of the Governor-General-in-Council, the Local Governments should be left entirely free in the distribution of the grants. In like manner, the aggregate annual amount of the grants having been fixed, the details of the expenditure should be left entirely to them.

In January 1853 Dalhousie laid these proposals for working out the Despatch of 1854 before his Council and by February, he was able to report to Wood :

The Education Scheme is, I think, now fairly launched, as far as the Supreme Government can do it, and the Sub-ordinate Governments will work out the details quickly and with good will. The whole is being reported to you officially.

Wood told him that he was very glad to hear this and thanked him very much "for having taken so much interest in it". Indeed, Dalhousie took a keen interest in the working out of the Despatch. He hoped that if he lived, he would see "the whole organized and in complete operation (so far as this can be effected at once)" before he left India.

And he did not hope in vain. By the end of 1855 a distinct department for the superintendence of education was constituted. A Director of Public Instruction had been appointed by each Governor and Lt. Governor, and in the Punjab; and suitable aid by Inspectors and other means had been allocated to each of them. Provisional rules for regulating grants-in-aid had been sanctioned for the guidance of the local governments. And, finally a committee had been appointed for the purpose of framing a scheme for the establishment of Universities at the Presidency towns of Calcutta, Madras and Bombay. By the time Dalhousie retired from India in March 1856, it was still engaged on that difficult task and a new Governor-General saw the establishment of three universities at Calcutta, Bombay, and Madras next year.

It must be stated here that the education system which the British built up in India was geared mainly to achieving the ends of imperialism as is explicitly clear by a study of the first three paragraphs of the Education Despatch of 1854. When therefore the system failed to satisfy the needs of imperialism or revealed symptoms or gaps in the process of its operation threatening British interests in India, the *Raj* was particularly alarmed. The appointment of the Indian University Commission in 1902 is one such example. Months before appointing the Commission, Lord Curzon held an Educational Conference in Simla in 1901 and announced before the delegates when India was throbbing with the ideas of nationalism.

When Erasmus was reproached with having laid the egg from which came forth Reformation, "Yes" he replied: "but I laid a hen's egg, and Luther has hatched a fighting cock".

In 1947 when the "fighting Cock" drove the British out, they left behind the education system they had built up to suit their own interests just as they had to part with its two other contemporaries, also pillars of imperialism—the Railways and the Electric Telegraphs.*

PLACE OF EDUCATION UNDER THE INDIAN CONSTITUTION

P. B. MUKHARJI

The right to education is not one of the rights or freedom mentioned under Article 19(1) of the Constitution. It is not a Fundamental Right as such, except some educational rights of the minorities recognised under Article 30 of the Constitution.

Right to education is expressly mentioned in the Directive Principles of State Policy under Part IV of the Indian Constitution. Article 41 of the Constitution provides *inter alia* "The State shall within the limit of economic capacity and development make effective provision for securing the right to education". The use of the words 'right to education' is, strictly speaking, incorrect because this right in the Directive Principles is not enforceable in Court by the citizen. Although it mentions the right to education, such a right is not recognised as a Fundamental Right under the Indian Constitution.

Again in the Directive Principles, Article 45 of the Constitution provides "The State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of 14 years". Here is an appreciation or recognition of the need for "free and compulsory education" for all children upto the age of 14 years. This has not been carried out although the period of ten years after the Constitution has expired.

Education is a neglected subject and having regard to the magnitude and importance of education in the Indian democracy, the amount of national budget spent on education is disproportionately meagre. Apart from this general context, there is in the realm of mind, conscience and thought the large and the crucial question of educational freedom.

Educational freedom is another foundation of the liberty of mind, conscience, thought, and belief.

What is educational freedom? On the answer to that question hangs the fundamental problem of human values and emancipation of mankind. Educational freedom means in the first instance the right for every citizen to receive a basic education. What is a basic education and how much it will contain in its curriculum may be a matter for experts and may be debated. What, however, is beyond argument is that some basic education for all citizens irrespective of sex, race, colour, creed or caste or station in life must be open to all.

But the concept of educational freedom is not exhausted by a basic education. Freedom of mind and spirit, of intellect and thought, has to be nourished by free and independent education at all levels—the basic and primary, the secondary, the university, and the higher education.

One major question at the outset is whether education should be controlled by the State or by the Government. In the modern world it is a controversial and debatable subject. A wholesale control of education by the State or Government kills intellectual liberty, liberty of mind, conscience and thought. The State and the Government today are controlled by political parties. State controlled education, therefore, is bound to be partisan and lopsided. It means exclusion of books on subjects, theories and ideas which are not consistent with the State or Government policy. This prevents the growth of the individual and the fulness of his status as a man. If the democratic right to education is based on the need of free market for free ideas, where clash of contending opinions is the main-spring, then such a State education is a death-knell to democracy.

At the same time there are certain areas where State compulsion in the matter of education is necessary. The quality and the extent of such State control have to be carefully limited. In a democracy no citizen can afford to remain uneducated. There is, therefore, a right to some education

for every citizen in a democracy, which is, an obligation upon the State. For instance, no parent or guardian can be allowed to keep his children or wards uneducated. The basic education, therefore, must be compulsory for every citizen, even if such compulsory education is not free. The basic minimum content of such education like acquaintance with the three Rs of reading, writing and arithmetic, in addition to elementary science, hygiene, the basic history and geography of the country may be insisted upon by the State. Beyond this control in respect of quality and area, it is desirable to reduce State interference in educational freedom to the minimum.

This educational freedom is not confined merely to the curriculum or subject of education but extends fairly reasonably to teaching and educational administration. State control of teaching or State control of educational administration in schools, colleges, and universities is an undesirable encroachment on educational freedom. Exception no doubt will have to be made where there is any attempt by private sources to make teaching, educational administration, and students' organisation the forum or a field for partisan propaganda and indoctrination. Recent decisions in the American Supreme Court show that danger from this point of view, where attempt has been made to control teachers and professors and educational administration by the State. This danger is gaining ground in India.

In the field of education, the American problem of Negro children has raised the problem of segregation. It was at one time thought that if the school is the same then segregation of the black does not infringe the principles of equality in education because the institution, the teacher, and the curriculum remain the same. This was the American doctrine which was expressed as "separate but equal". But in 1954 the problem came for a final decision.

In *Brown-Vs-Board of Education of Topeka*, 347 U. S. 483, Chief Justice Earl Warren said, "Segregation of white and coloured children in public schools has a detrimental effect

upon the coloured children. The impact is greater when it has the sanction of the law ; for the policy of separating the races is usually interpreted as denoting the inferiority of the Negro group. A sense of inferiority affects the motivation of a child to learn. Segregation with the sanction of law, therefore, has a tendency to retard the educational and mental development of Negro children and to deprive them of some of the benefits they would receive in a racially integrated school system." This is a landmark in the law of educational equality.

On the question of academic freedom many serious questions have arisen in recent times. A primary question of importance is about the teacher as a citizen and his political activity and association. Academic freedom is a very controversial subject. The conflicts of interests and sincere differences of opinion are numerous, delicate, and overlapping. A university is usually regarded as the centre of free and independent thoughts helping the process of research and higher education and the fullest mental, moral, and intellectual development of man. Generally, therefore, freedom of speech, writing and research are recognised. It is also recognised that the teacher should be entitled to speak freely outside the classroom on matters which claim his interest. The teacher's right to organise into unions to force recognition has limitations which must be carefully prescribed. He normally enjoys the right to be a member of a political party. The right of a teacher to run for political office or for Parliament or Legislatures has been recognised but in many instances without regard to the degree of its compatibility with academic duties and responsibilities of teaching.

A serious question has developed about loyalty oaths in the United States. Oath requirements are not new. For many years, teachers in tax-supported schools in more than twenty States in the United States have been required to take oaths to support the Constitution of the United States and of the particular State. But test oaths directed to disclose past loyalty or disloyalty poses more serious problems. They are

being increasingly implied as part of routine for testing fitness for employment in public schools and State-supported universities. These oaths are varied in form, such as a sworn statement that one is not a member of a revolutionary party and has not been such for a fixed period of years, or an oath that one is not and has not been a member of any organisation described as subversive by the Attorney-General or by the various Legislative Committees or other authorities.

Refusal to take these oaths has resulted in dismissal. False statement in the oath made the teacher open to perjury. American schools and colleges are operating on the principle that university teaching must be fair-minded and objective and that present membership in a revolutionary party creates a very powerful presumption of incompetence to teach because of the inherent loss of intellectual independence incurred by those who become members of such party. Congressional investigation of schools and colleges in the United States have created a sharp impact. The drive in the direction of conformity has resulted in intimidation of teachers. Refusal to cooperate with such congressional investigation in giving testimony has been accepted as a basis for dismissal.

Again there is a very grave impact of various pressures on academic freedom. These pressure groups exist among the big foundations, powerful political or religious or industrial interests and the Press combines.

"Taxes on Knowledge" are also a very highly debatable subject on the issue of academic freedom. In *Gusjean Vs. American Press Company*, 297 U. S. 233, the American Supreme Court condemned as unconstitutional any device that falls within the category of taxes on knowledge, holding that a licence tax on advertisements printed and published in newspapers, magazines or any other publications for engaging in such business was unconstitutional.

The position under the Indian Constitution should be analysed first. It will be necessary to focus our attention

more closely to the Seventh Schedule under Article 246 of the Constitution. There are the usual Three Lists ; in List I the Union List. The Entries touching upon education are 63, 64, 65 and 66. They are worded respectively as follows :—

- “63. The institutions known at the commencement of this Constitution as the Benaras Hindu University, the Aligarh Muslim University and the Delhi University, and any other institution declared by Parliament by law to be an institution of national importance.
- 64. Institution for scientific or technical education financed by the Government of India wholly or in part and declared by Parliament by law to be institutions of national importance.
- 65. Union agencies and institutions for —
 - (a) professional, vocational or technical training, including the training of police officers ; or
 - (b) the promotion of special studies or research ; or
 - (c) scientific or technical assistance in the investigation or detection of crime.
- 66. Co-ordination and determination of standards in institutions for higher education or research and scientific and technical institutions”.

Then there is List II, the State List. Entry 11 in List II, the State List is to the following effect ; —

“Education including universities, subject to the provisions of entries 63, 64, 65 and 66 of List I and Entry 25 of List III”.

Then there is List III, the Concurrent List which has Entries 25 and 26 to the following effect :

- “25. Vocational and technical training of labour.
- 26. Legal, medical and other professions”

The Union List shows powers of legislation of Union Government. The State List shows the powers of the legislation of the State Government. And the Concurrent List shows the power of legislation concurrently with the Union and the State in respect of the specific entries on education. Parliament has the exclusive power to make laws in respect of any matter enumerated in the Union List. State legislature has exclusive power to make laws for such State in respect of any matter enumerated in the State List. Parliament and the State Legislature have the concurrent power to make laws with respect of any matter enumerated in the Concurrent List.

Education is the first foundation of Indian democracy. Lack of literacy, elementary education and extreme poverty among a large section of the people are a serious handicap to the progress of Indian democracy and require to be removed as soon as possible.

Education is primarily a State subject for education under item 11 of the State List. Its main evil consequence is that no uniform legislative policy about education in the States is possible in the Indian Constitution. Great differences and divergences in the period of education, curriculum and courses as well as in the standards of teaching and examination are discernible in schools, colleges and universities in the different States of India. This is not the only constitutional difficulty. The Union or the Federation has a very limited field of legislation in the area of education as will be seen from Entries 63, 64, 65 and 66 of the Union List.

This constitutional picture tends to create confusion of educational standards. In so vital a matter of national concern like education, it is difficult to make a distinction between institutions of national importance and those which are not, which the Union List attempts to do. To discriminate in favour of universities like the selected ones at Delhi, Benaras and Aligarh and other universities as special classes is illogical. To distinguish scientific or technical education and research for the purpose of granting a divided power to the Union and

the States does not make either for uniformity of standards or for the solidarity of Indian education. Entry 25 in the Concurrent List gives both the Union and the States power to legislate on the subject of vocational and technical training of labour. This again is illogical and covers a veiled dilemma on the subject. There is hardly any uniformity at present, as a result of this constitutional provision in vocational and technical training of labour.

This is the second constitutional difficulty.

Then the judicial decisions on education. They reflect the contemporary confusion in educational freedom. The Gujarat University, Ahmedabad, Vs. Krishna Ranganath Mudholkar in 1963 Supplement (1) S. C. R. 1112, the Supreme Court faced two problems namely, (i) whether the Gujarat University had power to make Gujarati a compulsory medium of instruction in the university and (ii) whether conferment of such power was within the legislative competence of the State Legislature of Gujarat. There was difference of opinion. The majority took the view that the Gujarat University Act did not confer the power on the Gujarat University and even if it did, such a power would be *ultra vires*. The majority also took the view that the wide power over education given to the Provinces under the old Government of India Act, 1935, had been substantially reduced by the Constitution. Shah J, who delivered the judgment for the majority makes it clear that the power to co-ordinate standards does not mean that Parliament was without power to prevent standards falling or to prevent disparity of standards from arising. The learned Judge took the view for the majority that the State legislature of Gujarat had no power to impose Gujarati medium in the university. Subba Rao gave dissenting judgment.

The next case to which may be referred is equally interesting and instructive. This was the President's reference under Article 143(1) of the Constitution in Re : The Kerala Education Bill, 1957 reported in 1959 S. C. R. 995 which raises important question under Articles 29 and 30 of the Constitution. This

was also not an unanimous decision of the Supreme Court as Venkatarama Ayer J. dissented on one of the issues involved. Articles 29 and 30 of the Constitution create certain educational and cultural rights for the minority as Fundamental Rights. The Directive Principles of State Policy such as in Articles 41 and 45 remain however not justiciable. Articles 330, 331, 334, 336 and 337 relate to special communities such as the Anglo-Indian community, Schedule Castes and Tribes. This reference decides that Article 30(1) of the Constitution gives two rights to the minorities, namely, (i) to establish, and (ii) to administer educational institution of their choice. The Court rejected the argument that the right to admission under Article 29(2) was limited to members of the community for whose benefit the schools were established. It has to be noticed here that the minority has not only a right to establish and administer educational institutions of their choice but also there is no limitation placed on the subjects to be taught in such institutions. The expression "of their own choice" is significant. Educational institutions of this nature fall into three classes (a) those which do not seek either aid or recognition from the State, (b) those which want such aid, and (c) those which want recognition but not aid. The second category was further sub-divided into two classes, (i) those eligible for receiving grants under the Constitution, and (ii) those not so entitled by trying to get the aid. Anglo-Indian educational institutions were held to come within the class eligible for receiving grants under the Constitution. Some of the provisions of the Kerala Education Bill therefore were held to infringe the Fundamental Rights under Article 30(1) of the Constitution and therefore void. Grants-in-aid or recognition cannot be offered on terms which involved or surrendered the Fundamental Rights under Article 30(1) of the Constitution.

Provisions prohibiting the charging of fees in primary and secondary classes were held void as violating Article 30(1) of the Constitution on the ground that the right to recognition was not a Fundamental Right, but even then it could not be granted on condition that no fees should be taken from students

attending primary and secondary classes as that might make it impossible for a minority educational institution to function.

There is another decision to which a reference may be made. That is the case of *Sidhrajibhai Vs. State of Gujarat*, (1963) 3 S.C.R 827. There also, the petitioners were Christians. The Supreme Court held that Article 26(a) conferred on the religious denomination the right to establish religious and charitable institutions and "in a larger sense an educational institution may be regarded as charitable". The Supreme Court was also of the view that though rights under Article 30 were absolute yet regulation in the interest of efficiency of instruction can be upheld. The Court held in that case that the restriction imposed by the rules and the directions were manifestly not in the interest of the Society concerned.

The present position therefore can be summarised by the following propositions. First, a school established by minority, will come within the ambit of Article 30(1) of the Constitution even though what it imparts is a general education and its students are drawn not merely from the minority community but also from the other communities. Secondly, the right guaranteed under Article 30(1) of the Constitution is a right that is absolute and any law or executive direction which infringes the substance of that right is void to the extent of the infringement. Thirdly, the absolute character of the right will however not prevent regulation in the true interests of efficiency of instruction to help sanitation, morality, public order and such regulations are not restrictions on the substance of the right guaranteed by the Constitution. Fourthly and lastly, the Fundamental Rights in Article 30(1) are intended to be effective and should not be cut down by any regulatory measure conceived, not in the interest of minority educational institutions, but of the public or the nation as a whole.

The doctrine of minority educational right in this respect has been extended to the *Brahma Samaj* in *Dependra Nath Vs. State of Bihar*, I. L. R. 40 Pat. 783 (Full Bench) so that, an order of the Government interfering in the management of the school was held ultra vires and void.

A burning problem of the present time is how far English as a medium of instruction can be prohibited to curtail educational freedom. This problem is illustrated by the decision of *Srikrishna Vs. Gujarat University*, A. I. R. 1962 Guj. 88 (Full Bench). This relates to St. Xavier's College which has been established for the propagation of the religious and cultural interests of the Roman Catholics who are a minority in Gujarat. As has already been noticed, the Supreme Court held that the State legislature had no legal competence to affect the medium of instruction.

There are various other decisions. Some instances may be given here. In *Dav College, Jullundar, Vs. State of Punjab*, the Supreme Court in A. I. R. 1971 S. C. 1737 considered the provisions under the *Guru Nanak University Amritsar Act*. It was held that if a provision is made for study of Punjabee language that does not furnish a ground for discrimination. The Supreme Court in a similar case with similar title reported in A. I. R. in 1971 S. C. 1731 held that while the university can prescribe Punjabee as a medium of instruction it can not prescribe it as the exclusive medium nor compel affiliated colleges of minorities to teach or take examination in that language with Gujrati scripts. It was held therefore that the circulars issued by the university making Punjabee as the exclusive language are unconstitutional. Then again in *State of Kerala Vs. Rev Mother Provision*, A. I. R. 1970 S. C. 2079 Supreme Court pointed out the two rights under Article 31 of the Constitution. While it held the management must be free of control so that the founders or their nominees can mould the institutions as they think fit and in accordance with their ideas of how the interest of the community in general and the institution in particular will be best served, yet there is an exception that the standards of education are not a part of the management as such and the minority institutions cannot be allowed to fall below the standards of excellence expected of educational institutions or under the guise of exclusive right

of management to decline to follow the general pattern. It held certain provisions of the Kerala University Act to be ultra vires.

In a recent decision in the Ahmedabad St. Xaviers College Society Vs. State of Gujarat, A.I.R. 1974 S.C. 1389, the Supreme Court has held that Article 30(1) of the Constitution covers institutions imparting general secular education. The object of Article 30 is to enable children of minorities to go out in the world fully equipped. It will be wrong to read Article 30(1) as restricting the right of minorities to establish and administer educational institutions of their choice only to cases where such institutions are concerned with language, script or culture of the minorities. Articles 29 and 30 create two separate rights though it is possible that the rights might meet in a given case.

The overall view of the distribution of legislative powers shows that primarily education is a State subject and within the State List. The Union Government only deals with specific institutions of education as expressed above. The Concurrent List is with regard to vocational, technical, legal, medical and other professions. Result has been that each State in India has a different type, pattern and standard of education. Assuming that some latitude has to be given for the diversity of languages, it is becoming increasingly necessary to centralise and control educational policy for the whole of India. Otherwise this diversity of standards now existing in the schools, colleges and universities of States are leading to and will lead to a state of 'complete chaos of norms and quality. The mark of such chaos is already apparent in the standards of education from the stage of schooling to the stage of graduation and research. The patterns of the universities, schools and colleges are also different and their standards are declining rapidly every day. If each State considers its primary university to be a university of national importance then it will lead to an impossible situation. States in India are jealous of retaining their powers. The Union is naturally and understandably cautious in

this respect. Time has come to find a real, enduring and effective solution of the national difficulty.

It is the general impression that education has become unrealistic in the present age in mood and climate. It is said that those who become educated in schools, colleges and universities do not become fit for any job or employment. This is to a large extent true. Education has to be realistic—it must be suited to the present needs of the society. That is why the present clamour or slogan is for job-oriented education. Teach them something which will make them earn a living. This is largely true for technical, vocational or poli-technical institutions imparting education to a large section of the youths of the country. But it is equally necessary to remember that all education is not necessarily job-oriented. A general education is a need for the general mass of people. The reality of that general education is building up the character and the moral stature of the man so that when he goes out into the life's struggle he has the maturity and wisdom to take the correct decisions and to stand up against the buffets of life. This can not be dismissed as unrealistic. This is the very core of education. Any national policy of education will have to harmonise and balance between this realism and this idealism in education. We can not afford to produce mere robots or mere vague idealists.

These are my reflections on education in the light of the Indian Constitution. Education must have a policy and a mechanism to carry out that policy. We have been reduced to a position which has become intolerable. The schools, colleges and universities, the basic, primary, secondary, university education and research are in total disarray. The technical and vocational education is equally in a chaotic state.

There is a general feeling that education in the country is not what it should be. The feeling amounts to almost a resentment amongst all classes of the people, the teachers, the

employees at educational institutions, the guardians and the public. Examinations have almost become a farce — the announced dates are not adhered, the publication of results are inordinately delayed. Standard of setting questions and their answers are uncertain. Mass copying is rampant. invigilation is nil. Political influence is pervasive. Something has to be done. Various random proposals are being made all over the country all the time, indicative of the ferment. The University Grants Commission makes certain proposals. The State Governments make their own programmes which are constantly changing.

My suggestions and proposals are as follows in the circumstances :

The first need is to have an integrated National Policy for education in India. Firstly, the Education Minister for India should have a Cabinet rank in the Government of India with necessary experience and authority equipments and sanctions behind him. Secondly, the national budget for education requires to be increased considerably in the national evolution. Thirdly, the objectives of such education should be made clear. Such objectives are (i) integration of India, (ii) reasonable recognition of the needs of the different cultures in the States in India within the framework of an integrated and national Indian outlook, (iii) a sensible language policy in which the education is to be given with due importance to the mother tongues in each State, (iv) a co-ordinated and integrated system of education beginning from the lowest to the highest level. Fourthly, it is imperative that each State must have an Education Commission which will co-ordinate State education in every sphere. This Education Commission in each State should be in overall charge and should co-ordinate basic, primary, secondary, college and university and research education, working through Education Commissioners and Directorates in different spheres. It will also have a responsibility to reorganise and reform, from time to time, as the situation demands, organisations like schools, colleges,

universities and other educational institutions in the State. At the apex will be the Minister for Education, his Cabinet colleagues and the officials of the Ministry of Education of the Government of India. Fifthly, the grants and aids to education by the Union Government, U. G. C. and the State Governments should be distributed fairly and reasonably without creating zonal and regional imbalances. There should be no quick and hasty changes in the system of education once introduced like the recent change to the 10 year, 11 year, 12 year courses for school leaving and higher secondary and 2 year and 3 year in the Degree courses, but there should also remain reasonable flexibility to readjust according to the circumstances. Above all, sixthly, to achieve these objectives the need is to have a fresh look at the Indian Constitution and for necessary amendment of the Constitution in respect of the legislative powers of the Union and the State. Without such amendment to the Constitution it is not possible to have a National Policy of Education.

If there is a will there is always a way. If the Government of India, the State Governments and the people of India will it, this House of Education in India can be reformed and set right and the present prevailing panorama of futility, frustration, anarchy and chaos in education in India sitting as an encubus can be lifted. Politicking with education should be kept at an arm's length and all political influences in education should be removed. The present state of education in the country is a political question but it is good and wholesome to remember that its remedy is not political.

This is the burning question of the hour. Unless Education can be saved, Indian democracy cannot be saved and India cannot be saved.

EDUCATION IN CHANGING SOCIETY

SUDHANSU DAS GUPTA

Indian education system is being exposed to criticism for a long time now ; the predominance of western influence due to British background, the moribund methods of teaching, the fading vitality of teachers as a class as well as the absence of an effective intellectual community in India. The system is not central but only marginal to its own life and times : there is painfully continuing separation between the 'producers' and 'users' of knowledge. And yet education alone gives the citizen awareness and articulation in respect of both infrastructural and human environment. Edward A. Shils writing in 1935 observed in this context :

“The custodians of the intellectual communities of the new states must therefore bear constantly in mind that the precipitation of a new and indigenous intellectual centre of gravity within their own countries requires simultaneously the cultivation of good relations with the intellectual community outside and with the authoritative, executive sectors of their own society”.

In the Report of the University Education Commission (December 1948 to August 1949) it was stated that education is also an instrument for social change. Its sole aim was not to enable us to adjust ourselves to the social environment. People must not merely be framed to be citizens but also to be individuals : the aim of education should be to provide background for new values and make them possible. The Commission was also of the view that educational systems are built for a time and not for all time : there are no changeless ways of educating human nature. It was also recognised that *social justice* was the function of states just as the system of *individual development* is the basis of democracy. In a democratic society the opportunity of learning must be opened not only to strategic elites but also to all those who have to

carry the responsibility of citizenship. But the economic disparities which prevent fullest development of individual capacities obviously renders impossible the attainment of the clear objective implicit in Article I of the Universal Declaration of Human Rights all human beings are born free and equal in dignity and rights : they are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

The un-Indian character of education is attributed to English which continues to be the means of acquiring knowledge at least in its upper reaches. It has been suggested that the nation has thereby developed split conscience and the 'babu mind' At the same time it has also been emphasised that a University should be the place of free enquiry, with its windows open to the knowledge and culture of the world : there is no freedom without knowledge and the alien contacts based on English have enriched regional heritage most generously and have given sharp edges to our national aspiration. To this must be added the spirit of Indian people : faith, hope and charity are by themselves powerful forces for social change ; one of the main objectives of education indeed is to initiate youth in the art of living with hope and courage.

II

"Education is the reconstruction of human experience" says the Liberal and to the Liberal the quality of life in terms of children's experience in school is rather important because they affect the quality of life of children after bairing school. To the Conservative however each task a child does is merely the stepping stone to something beyond itself. The Conservative model attempts assessment of success and failure : input-output model ; the Liberal however considers this to be the dangerous cult of efficiency. The class of ideologies is also expressed in proclaiming "I love liberty : I hate equality".

In the United States some 59 million people (i. e., 1/4th of the entire population) are enrolled in formal education

programme excluding those who learnt through educational television. 60% of the current high school graduates continue at College or University. In fact the Basic Educational Opportunity grants made available by the Central Government in the United States has reportedly widened and deepened opportunities for college education. It had also been computed that adult education in various forms touches the lives of about half the adult population at a given time. The estimated annual cost of such opportunities formed nearly 8% of the gross national product. Yet it is duly acknowledged that *Universal education* is still a dream to be realised in spite of serious efforts being made since 1860 for compulsory community education. This is because there remains the ideology of some people who believe in *deschooling*. In their opinion the 'schools' crushed individuality, stifle creativity and cripple the mind and the emotions. There are others who think however that the consequences of a 'free' educational system would be the same as those of *laissez faire* and too much of reliance on 'the invisible hand' might lead to an untenable mixture of indiscipline and mysterious heresies of our times.

There is no doubt that the academic system like the body politic is subject to return to investment in man and the consequential responses. Particularly it is the class character presumably based on the character of the ruling *class* that has been attacked by many including the American student community. It is this attack which caused the acceptance of the concept of the multiversity. The Universities are based on the idea of transmission of intellectual heritage. But then the unity of the University is based not on its *administration*. The idea of multiversity is that of co ordinating sharply differentiated and competitive norms and of becoming an arena where the tumult of the outside world penetrates without let or hindrance. To the University machinery of today, the radicals offer as an alternative an academic community in which freedom of speech, expression and participation are absolutely uninhibited and unlimited. Since the University

functions within the Society which continues to be the user of its products, there must be due recognition of the fact that varying functions cannot be combined unless these are organised. It follows that the existence of conflicting forces and cultural demands must necessarily be subject to the emergent needs and restriction of the social order.

III

Educational imperative is the species of the genus identified as the struggle for survivable with *freedom* to survive (as well as to perish !) being an ancient and inalienable urge and at the moment freedom in its generic multiplicity is being attacked mercilessly at the behest of new Gods including the environmental planner. The struggle of the academic is however against being sandwiched between the Government and the Student Totalitarian. It has already been mooted that "a University is an *Alma mater*, knowing her children one by one, nota foundry or a mint or a tread mill". As this idea of a University is still the most respected, manpower planning in the University field has been discredited and the materialist image of the University has been rejected. It is again this idea on which the proposal for the establishment of the educational equivalent of the Lord Chancellor is based and conceived as a 'foil to the enthusiast for 'knowledge factory'. It would also imply the abandonment of the disastrous binary policy and a reversion to the ladder principle; all academic institutions in terms of this approach should belong to an autonomous sector which would be in a position to maintain reverent agnosticism. If there is a case for independence for our judiciary there is also a case for independent University. With an inevitable sense of history, the Professor who takes up his jobs as rare privilege of being substantively concerned with the rich heritage must fight for the standards of the institution he serves. Student Totalitarianism has already proved itself to be an enemy of University education : it represents people 'who hang about the womb of knowledge and prevent delivery'. Proposals for sharing of power with the Student Community need therefore, as a

precondition, a period of quiet maturity and conservation, for it may still be true that learned men have no moral right to delegate authority in institutions devoted to accuracy and truth. It is by offering battle against encroachment or surrender that the defences for liberty can be strengthened decisively.

IV

While we discourage students' totalitarianism as a reaction to radicalism we must not ignore the crucial role of education in so far as it is designed as a protection as also a preventive against authoritarianism whoever might build it. An individual today receives an overdose of institutionalism: corporate bodies, trade unions, industrial firms, professional bodies and local authorities. The quality of life enjoyed by any modern society depends on scientists and technologists and the manner in which the education system succeeds in turning out young people fully and vigorously equipped in the science. But unless youth has the sense of history social progress will neither be *measured* nor achieved. It is by such basic perception of social development that the young people own and possess intellectual confidence which is uniquely and recognisably the gift of higher education. It is not confined to those who pursue abundant professional competence. It is true that in the last analysis the higher education was the key to economic growth but this does not imply that there is any direct relationship between such education and increase in national income.

Legal studies are no doubt a part of *this process* of imparting higher education.

V

This is one basic aspect of our education system which has assumed importance and urgency from June 1975 when the

nation really decided to opt for clarity in lieu of "complex ambiguities of consensus". Legal education in our country is not being continuously cared for even though teachers of Law, the Bench and the Bar have invariably enjoyed elevated position not merely by the fortuitous association of lawyers with national leadership in our battle for independence but also due to the preeminence which the practitioners and scholars of English Law inevitably had over others not so oriented. Nevertheless, as the University Education Commission reported, the conditions of Law Colleges are generally at a low ebb. It was Aristotle who mooted the idea of education *in the spirit of the constitution*. It has always been important that we know our own constitution and in so knowing we should have been able long before the proclamation of Emergency to suggest changes in response to the challenges in the realm of social and economic order: our education system should take the blame for such conspicuous failure in reconciling law with what we call vaguely 'popular impulse'.

The report of the Education Commission (1964-66) makes the point that the elimination of ignorance and of grinding poverty which accumulated over centuries of inertia and exploitation was not any easy task, but a vitalised study of science with its emphasis on open mindedness, tolerance and objectivity would lead to the development of a more *secular* outlook and would eventually pave the way for the emergence of a Society which would cater to the needs of the whole man and not only to a particular fragment of his personality. Our point is: since law is the response to the entire firmament of social order and as written constitutions need the support of good conventions we need urgently a vitalised study of law in the Universities. The Commission acknowledged that considerable increase in the number of law-suits filed against the Universities in recent years was mainly due to a change in social attitudes. It is submitted that this was not because of increasing interest in the laws of the Constitution but because the Anglo-Saxon Juridical System necessarily made for justiciability in regard to matters which could be

settled outside Courts being exclusively within the jurisdiction of autonomous institutions. Another factor is lack of democracy in most educational institutions and the tendency to take recourse to law would be considerably minimised and the substitution of the University's own adjudicative process might be effected by strengthening and reinforcing the value orientation of legal studies. The objectives of such studies after all cannot possibly be provided for vexatious expenditures of time and money in terms of writs issued under Articles 226 of the Constitution and the Constitution cannot be heedless of values. We are therefore required to see that rights are not infringed and that as and when restrictions or deprivations of such rights take place these can be constitutionally or legally justified in terms of *the criteria of reasonableness* being laid down in so many words in the Constitution itself.

We also lack in legal education in this country work experience and social service (legal aid for the poor etc.). The importance of experimentation and innovation, the need for procedural changes to eliminate delay and resultant loss could be best provided if we lay special emphasis on the training and quality of Law Teachers who are mostly part time even today and who are unable to render *full* service in the interest of adequate legal education. Inevitably legal studies lack merely adequacy but also accuracy unless there is built-in insurance against intellectual obsolescence.

We may profitably launch the scheme of 'teaching companies' as had been introduced in the United Kingdom generating a good deal of interest among industrialists and academics. In a teaching company experienced practitioners, researchers and students intermingle and cross fertilise ideas while doing a job in *real* environment connected with the society where they can bring about changes which fit a real situation. Potential lawyers can be trained in Solicitors' and Lawyers' firms being constituents of such teaching companies and the advantage to the firm could be that

they will have use of a number of qualified young people since the Universities do not have funds for this sort of thing. Funds should be provided by the State Govt. This could work for a totally new ground as the Law Students would be required to tackle real problems rather than artificial situation. There could also be the prospects held out in terms of Ph.D. being awarded on the work carried out in a teaching company.

The concept of teaching company highlights in fact the problems of educating the young people who are already at work. Indeed it is this category of people who determine the nature of co-relation between education and well-being. Young people are naturally unwilling to get themselves involved with the many illusions of industrial society and the grim battle for full employment. At the same time there is now increasing social reference for the skill in building up social capital i.e. for those who design and build, who market and manage. If there must be education in terms of social and economic relevance and utility an important role needs to be played by humble Polytechnics and professional Colleges. The logic of this role for the thinking people is that public expenditure on education must be justified in terms of the public resources which education creates.

EDUCATION, UNIVERSITY & SOCIETY

DHURJATI MUKHERJEE

Education is the most important single factor in achieving rapid development and technological progress and in creating a social order founded on values of freedom, social justice and equal opportunity.

—INDIA'S THIRD FIVE-YEAR PLAN

I

That the educative process—starting from the school to the university level—has always been the cornerstone of social stability and continuity will be admitted by one and all. But whether, with rapid economic and technological transformations that have engulfed the body politic and affected the social order, education has succeeded in determining the approach of society towards the right path is definitely a big and vital question which educationists and social analysts are discussing and debating the world over. Putting the problem a bit precisely, it can be said whether education has made the individual free and easy or has life become more sophisticated and complex. That is, has the quest for a simpler, serene and cooperative society been accomplished or has the march towards the better society defined and discussed many a time by thinkers from the political, economic and social view point—been a march towards destruction.

The last century has witnessed widespread poverty; revolution—the jacquerie the millenarian, the anarchist, the jacobin-communist, the conspiratorial *coup d'etat* or the militarised mass insurrection, discrimination on the basis of sex, race and religion; intolerance and frustration; inter-

national wars and the like. In spite of this, progress in science, technology and medicine has been manifest resulting in the transformation of the Western part of the hemisphere to an industrially fast society and the Eastern part to a pseudo-modern society. While the transformation in the West has been somewhat quick and steady, in the East the characteristics have been wholly different. However, as has been widely admitted, the social revolution, far from equalising provisions, has widened the gap between the 'haves' and the 'have nots' in all segments of life. Though it is generally believed that there has been great social benefits from education, a deep analysis and examination of the thoughts and writings of radical and national social thinkers would force one to agree that the present-day ills of modern society (if the connotation modern can at all be used) have been because of a lack of proper education, specially because of the failure of the universities in keeping up their stature and tradition

The debate has been so tense that a thorough study of better society and social transformation through education cannot be made unless concepts of the university and its role in society are x-rayed. The start of the university, the growth and expansion of the university, the changing function and role of the university have to be studied keeping in mind the differences in approach and functioning of the present-day university in the advanced and the underdeveloped (or developing) societies.

II

The university was never intended to be either a Platonic Academy or a pedagogical institute, a cloister or an ivory tower, a scholars' enclave or a castalian. It was originally meant, as defined in Paris in 1213, to be the totality, community, and association of teachers and pupils, professors and students, who organised themselves for the better pursuit of their common interest in study. "Slowly and steadily academic

freedom and the internal autonomy of the university was gained and from then on it started to play a powerful role in society. Karl Jaspers observes that "the university has the task of seeking truth in the community of researchers and students — it has its own independent existence, free from state intervention and based on an eternal concept — a concept with the same supernational universal character as that of the church. It lays claim to and is granted the freedom to teach; that is to say it must teach the truth regardless of any wishes of directives either from outside or from within the university. The university is a school but is unique in its kind".

But the university failed to effectively play this part, to equip men and women properly for their exacting role in modern life and society. The great task of providing the future leaders of society with a training geared to the needs of a scientific civilisation was not accomplished, the university or the college just remained a traditional, scholarly enclave for the sanctified scholar far away from the realities and from the understanding and the direction of the forces playing on the national or the international life.

There can be no doubt that the university today has yet to play any effective role in the social transformation process, at least in the developing countries, being ridden with various problems and crises. The main four of these are — (i) the crisis of numbers, (ii) the crisis of finance, (iii) the relevance of the university curriculum, and (iv) the crisis of the new priorities. Regarding the first two problems, there is nothing new to be said except the fact that these have put intolerable strains and unbearable pressures on most institutions of higher education.

The third problem may be broadly divided into two categories—the first is the relevance of the general subject matter, that is, a better balance of humanities, social science and sciences than most universities have provided or are even

capable of providing and the second is the applicability of the education received. "An educational system may offer a balanced diet of the three disciplinary areas, but still offer all of them at such an abstract level that students would find their needs not met". The more developing the country, the traditional and superstitious its values, the process of transformation to a modern, technologically-addict challenging phase becomes difficult as it has to revolutionize the whole structure affecting not only the literate but also the illiterate population, specially the younger generation. As such, the curriculum has to be so framed as to cope up with the changes and challenges and the new forces released in the transformatory process of society.

The disjunction of the generation would have produced a whole variety of complicated social problems even if the pressing concerns for justice and peace had been adopted by this new generation. But independence, fueled by alienation, fed by distrust, separation exaggerated by fundamental differences in philosophy—all have served to present the universities with problems that are not just complex but explosive. The generations coming to the universities see their dissatisfactions—caused by numbers, costs and the socio-political atmosphere—aggravating in adjusting with the new priorities. As because most of the universities in the third world countries (and even to an extent in the developed countries) like to remain as a neutral institution for inquiry and debate on traditional issues and not as a force in the social transformatory process.

III

Very rightly questions one of India's leading educationists : "Where, if not in the university—in which the finest minds should grapple with the labour of thought—shall we discuss and thrash out, without breaking heads, the difficult and obstinate problems of science, sociology, economics, politics

and ethics which beset the path of man ?...Where, if not in the university, can we learn the great lesson that truth has not one but many facets and that different people can work out their salvation in different ways ? Where, if not in the university, will the students' budding intellect learn that its primary function is to question and probe and doubt and not to take things for granted, that the quest is even more important than the given truth ?".

The university has a historic function, it has to play a significant role in the social transformatory process through educating the younger generation and making them agents of social change. Thus it has to be a socially integrated institution by (i) assimilating itself to the State and society as an authority which has validity here and now, (ii) including within its scope not just research and academic training but real career building, and (iii) making the student community mature and at the same time vigilant enough to share in the decision-making machinery, that is, integrating student self-government with academic self-government.

University education must be so oriented—in its ideology, its methods and its organisation - that it will develop the basic qualities of character which are very much necessary for the successful functioning of a democratic society. A passion for social justice and an awakening of the social consciousness, tolerance and understanding of social problems ; a deep and true love for the country - its tradition and culture, its ethical values and ideals, its achievements and problems - thus helping in national growth and development ; a spirit of nationalism and sense of social responsibility and a realisation of the need for self-reliance and dignity of labour through love of all types of work (which will be a part of the education) must be imbibed in the youth community by the university so that they become more socially conscious and demand for others. irrespective of caste, creed, or race, the good things they cherish for themselves.

IV

Real education is primarily a process of training of the hand, head and heart in the art of living a happy and corporate life. Its object is the full development of the individual as a useful member of society, thus making him capable of fighting against any tyranny and injustice that may be imposed upon him by nature and society as impediments to development. Gandhi rightly maintains that no education is worth the name which does not inculcate the spirit of social service, self-sacrifice and self-reliance, the qualities that are essential for living cooperatively and harmoniously.

Education should aim at producing ideal men—men who are truly cultured, tolerant and public-spirited. Universities are not meant for and cannot produce saints. But they can certainly inculcate among students respect for spiritual and ethical values and make them understand that the promotion of human welfare, not self-aggrandisement, is the end of life.

No man however brilliant can be considered cultured unless he has the passion to serve and work for the community. A truly cultured man has a comprehensive mind, a mind which sees the world as but an insignificant part of the cosmos, which sees man in relation to the history of the entire human race. "Genuine culture", maintains Bertrand Russell, the great philosopher-revolutionary, "consists in being a citizen of the universe, not only of one or two arbitrary fragments of space-time; it helps man to understand human society as a whole, to estimate wisely the ends that communities should pursue and to see the present in relation to past and future".

The reform of education, to make it socially useful, can only be possible if a deep analysis is made of the following approaches :

- 1, *planning* to assess the needs for education in society and the performance of educational

agencies, to forecast future needs, and to propose alternatives and analyse the probable cost and benefits of choosing specified alternatives ;

2. *research* to increase knowledge of how human individuals learn and of other matters related to the effective functioning of educational institutions ;
3. *development* to apply available knowledge and technical skills to the development of curricula, instructional technology and other products ;
4. *professional education* pre-and in-service to enable teachers, administrators, and other educational personnel to relate fruitfully to the needs of individuals and to use modern knowledge and technology to aid learning :
5. *dissemination* of information to educational practioners and concerned citizens regarding research findings, improved technologies, materials of instruction, forms of organisation and other developments with potential for improvement of educational achievement ;
6. *implementation* through assistance to schools and colleges in evaluating, selecting, installing and regulating innovative processess and products ; and
7. *evaluation* to measure or otherwise assess the effects produced by different processes and products, with particular reference to the extent to which performance criteria are met by various combinations of materials, media and other things.

V

The Indian Government and many other governments of developing countries have recently been considering the setting up of a National People's University functioning on the broad

pattern of the Open University in the United Kingdom. It has been expected that this university would enable the delinking of higher education from degrees and make it possible for every young man and adult, in any part of the country, to improve his knowledge and skill on the lines of his choice. The aims of this type of university, with a societal bias, have been proper growth of education, specially higher education, and a measure of equality of opportunity never attained before. This growth has probably become essential because the policy followed in these countries since independence had not yielded satisfactory results. But the growth has to be regulated in the proper manner so that it would not effect quality as had often been in the past. Higher education without quality is no education at all and can do and has done harm to society.

What is needed through this type of national university is a radical reconstruction of the concept and process of education—that is, education should become socially linked and purposive—“essential for economic and cultural development of the country, for national integration and for realising the ideal of a socialistic pattern of society. This will involve a transformation of the system to relate it more closely to the life of the people; a continuous effort to expand educational opportunity, a sustained and intensive effort to raise the quality of education at all stages; and the cultivation of moral and social values”.

EDUCATIONAL PLANNING FOR ECONOMIC DEVELOPMENT

RAMESH CHANDRA

The object of this paper is to discuss the problem of integrating educational plans of a country with its economic development—a problem which is confronting not only the developing but also the developed countries. This treatment to the subject will by-pass discussions on many non-economic themes which are in no way less important.¹ The problem that we are looking through the narrow lens is how to plan the educational system of a country, specially the poor ones, for accelerating the economic growth.

There are many people who believe that poor countries do not need plans as they have nothing to plan with and plan for. They believe that the resource position in such countries always remains very much uncertain and unpredictable. Hence there is no advantage to plan on hypothetical assumptions. One finds it difficult to accept this view because the need for planning arises only when there are limited resources which are to be allocated for optimum use.² The educational resources in poor countries are always meagre in comparison to other allocations and therefore there is the need to plan in such a way which could embark the economic development.

Economists have, by and large, agreed that "planning is concerned with setting up an effective system for utilizing resources to their best advantage to serve given ends." In their opinion the effective educational planning should try to build up a structure which could achieve economic growth besides meeting the social and cultural goals. It may serve as an instrument for making the educational system more effective and responding to the needs of economic development.

Educationists also agree that planning in education should be done in a way which could help in achieving the 'national goals'. One of the national goals, specially in under-developed countries is to go beyond what economists have described as "take-off stage." Thus, it is logically followed that educational planning should be related to achieve economic goals or in other words the theory of educational planning should be geared to the theory of development. This is really a difficult and painstaking task. It appears that even on the theoretical grounds such exercises have not been done as Anderson and Bowman feel "...there is no firm agreement on precisely what planning is or should be. Clarity is not aided by recognition among scholars. Certainly at present there is nothing like the theory of planning and even less, is there a theory of educational planning." This lacuna in the field of education in most countries of the world has resulted in the devaluation of money value of education and has further left the educants to receive unproductive education. Unrest in students, frustrations in the recipients, and wastage of scarce educational resources are commonly seen in these countries. Such happenings have cracked the educational structure the world over, which Philip H. Coombs describes in the opening chapter of his famous book, *The World Educational Crisis*: "Since much of the Material does not convey a rosy picture, this...could be wrongly understood as a cry of hopelessness...The risk of being so misunderstood is nonetheless accepted, for the alternative is worse still...We firmly believe that the world crisis in education can be overcome...if the people concerned candidly and systematically diagnose their educational problems and plan their educational future." 4

Basic Assumptions

A systematic educational planning, aiming to speed the economy on faster growth, needs to be developed on certain basic assumptions. These assumptions are the fundamental considerations for formulating the educational plans of any country.

First, educational planning should have long-range perspective with a view to anticipate the future demand of educational products. In simple words, the educational plans should have vision to take into account the need of trained personnel like doctors, engineers, teachers, etc. This long-range perspective can have short-range views also to judge periodically the effectiveness of plans and achievements of targets.

Second, educational planning should be comprehensive in nature which could visualise the over-all development of the *educational system of a country*. In other words, 'comprehensive in nature' means a planning which would lead to harmonious development of all sectors of education. This view is somewhat in disagreement with Shri J. P. Naik, an eminent educationist of India who rejects 'comprehensive approach' and prefers the 'selected sector approach.' In his book *Educational Planning in India*, he describes that the greatest defect of our educational planning has been "the adoption of 'comprehensive' as against 'selected sector' approach"⁵ and after making the critical appraisal of educational system in India he concludes with the need of "not a comprehensive approach to educational planning, but a selected sector approach"⁶.

If we go a little deep in the thesis proposed by Shri Naik, it appears that the meaning understood by the 'comprehensive' approach is not very apt which in his words means "to do something of everything." Comprehensive approach never means this; contrarily, it stresses the need for planned and harmonious development of different sectors of education. Any nation which is wedded to 'long-term planning' cannot ignore the different counterparts of education. However, economists have well recognised the importance of "priorities" in such a system which Shri Naik addresses as "selected-sector approach." By selected sector approach Shri Naik means "those sectors which are extremely vital for the future development." If we analyse the theories of growth

economists, whether applied to physical industries or to be adopted in education, the long-term planning always keep "priorities" for certain planning. Thus, Shri Naik's disagreement on the 'comprehensive approach' is not real and his thesis proposing 'selected sector approach' appears to be another name of "priorities in educational planning."

A word of caution is needed while laying emphasis on "priorities" or selected sector approach to educational planning. It is very difficult particularly in the case of education industry to locate "those sectors which are extremely vital." And once they are located, it is important to see that outturn or supply of the educational product does not exceed the demand. The imbalance in supply and demand can make the "extremely vital sector" as non-vital. For example take the case of India, while recognising the fact that technical education leads to the country's faster growth, so much emphasis was given that now a large number of engineers are unemployed. One may dare to say that the vital sector 'technical education' has become unproductive in a developing country like India.

Third, educational planning should be integrated with the overall economic planning of the country. In other words, educational plans of a country should be framed to help the economic and social development. No nation can tell that in its history educational planning came first and then the economic planning was formulated. In fact under the wider spread umbrella of economic planning, countries have prepared their educational plans. For quite sometime the educationists believed that educational planning was their own child hence others have nothing to do with it. This single defect had led to several dangerous consequences, but now in almost every progressive country educationists join hands with economists in formulating their educational plans to boost up the economic development.

Fourth, educational planning should be closely related with educational management. It has been observed many

times that educational plans are good but their implementation is weak. Thus, while formulating the educational plans it is desirable to consider the efficiency of people who would be responsible to handle it. If the implementation part is not satisfactory, even the best type of planning will remain limited to the academic world only. It is in the fitness of things that educational administrators, teachers and others responsible for implementation, should be taken into confidence. Unfortunately, in our country teachers are hardly taken into active confidence at the formulation stage. Thus the plans are thrust upon them and they work half-heartedly.

Fifth, educational planning must aim at developing the qualitative and quantitative aspects of educational products. In low income countries, while the quantitative expansion of education has been regarded as necessary for eradicating the illiteracy of masses, it however, cannot afford to ignore the qualitative development which would ultimately make the real impact on economic front. Planning experts and the persons attached with granting educational resources have often warned that "the uncontrolled expansion of the educational system cannot be tolerated so long as sufficient attention is not paid to improving the quality of schooling."

Major approaches

From the discussion made above it is clear that there are certain prerequisites for a sound educational planning which aims at achieving the economic development. But the real task does not end here, in fact it starts from the point when the above basic assumptions are kept in mind while adopting any approach to cure the ills of the educational world. Jerry Miner feels "It is no longer appropriate to argue the desirability or even the necessity for educational planningControversy begins, however, as soon as there is an attempt to specify the most useful approach to educational planning for purpose of promoting economic development." Before entering into

the controversy, let us discuss those approaches which have generally been adopted in the educational system.

The Social Demand Approach

In simple words the Social Demand approach means "the aggregate popular demand for education at a given place and time under prevailing cultural, political and economic circumstances." It gives the simple description of what is happening in the educational system—in the sense how many people desire to have education without taking into account its theoretical justification and practical rationale. The social demand approach is a very misleading term and hardly used by educators. However, economists feel that the resource allocations to education through this approach are nearer to consumption aspects of education than investment. For instance, the compulsory primary education in most of the countries have affected the social demand for education. People have raised doubts about this education from the view point of economic development. But their doubts are not very sound as "the direct effects of primary education on the individual are evident. Less well understood are the indirect effects on the country as a whole. Substantial indirect returns accrue from the role of the primary school in generalising within a nation basic concepts of progress and rationality, in awakening aspirations, and in aiding the discovery of latest talent."⁹

There appears to be three important reasons for the sharp increase in the social demand for education. First, the mounting educational aspirations of parents and children for receiving more and more education with a view to getting good jobs. Second, the educational policy of almost every country to inspire children for higher participation rate in each age-group. This is more so in the developing countries which have proclaimed in one way or the other for compulsory education upto a particular age-level and further equal educa-

tional opportunities for all age-groups. And third is the population explosion which has acted as quantitative multiplier and has increased the total number of enrolment world over.

The planning of education through this approach has received certain criticism. Firstly, it presumes that no matter how many resources go to education but all of them will lead to national development. In practice this does not happen. Secondly, it believes unlimited absorptive capacity of educated manpower in the economy. This very often results in the excess supply of certain types of educational products and thus reduces premium on education.

The Manpower approach

These days many people, particularly the economists, have preferred the 'manpower approach' to educational planning for economic development. Economic growth, as we know, is not possible only through physical capital but requires human resources also. Human resources are developed through educational system and play an important role in economic growth provided the educational system has been geared according to the country's requirements. Thus, manpower approach to educational planning relates to the estimating of educated manpower for the different sectors of economy.

There have been great imbalances in the demand for and supply of educational products for different economic pursuits. A paradoxical situation is emerging these days when people demand education. They however, do not know what kind of education would serve them and their country best. Their preferences are often based on the past circumstances which mislead them and do not guide in the new situations. They go on clearing one standard after another like a blind man on the road trying to reach at a particular destination. This process of receiving education is certainly not based on manpower requirements. In the manner, now students are trying

to enroll in various educational institutions and receiving certificates of merit, may reflect the social demand for education but certainly not the country's manpower requirement. The increase in social demand for education, for reasons stated above, may grow faster than the manpower requirements and create a situation of 'educated unemployment' as we are observing these days.

The need of manpower approach to educational planning is necessary to estimate the demand and supply of educational products, and the scarce resources spent on them particularly when the general trend the world over is of rising costs in education. It is in the interest of the developing economies that their scarce resources should be utilised for giving utmost benefit to the nations. At the same time costly educational products in terms of public as well as private costs, should not go waste. This can happen only when a country adopts in true and earnest sense the manpower approach while formulating the educational plans.

The practical application of the manpower approach needs variety of data. For instance, it needs (a) the present stock of qualified people; (b) the future demand of educational products; (c) the rate of replacement on account of death, retirement etc.; (d) the present outturn of the education industry at various levels; and (e) information about the unemployment and underemployment of educational products. To obtain reliable information on these items is an extremely difficult job particularly in developing countries where statistics in general and educational statistics in particular are defective. Because of this limitation, efforts made in application of this approach have not given the desired results.

The Rate of Return approach

Yet another approach to educational planning is the 'rate of return' approach which has been developed on the 'cost-benefit' principle. Like an individual who has limited resources

to satisfy unlimited desires; for any economic activity he examines the various alternatives in employing the means, weigh the costs and measures and the satisfaction derived from it. In the same manner, economists have argued that educational planners should follow the extension of this logic while allocating resources to education and returns they expect to get. The rate of return approach also emphasises the fixing of priorities within the educational system according to the benefits derived from them. The programme giving the highest returns should have the highest allocation from the total budget for education. For example "Hansen found the following social internal rates of return to three levels of education in the United States; primary education—15.0 per cent; secondary education—11.4 per cent; and higher education—10.2 per cent. These results suggest that either primary or primary and secondary education be increased relative to higher education."

In practical application of this approach, there are many difficulties particularly in measuring the costs and benefits. The rate of return approach is based on the averages while more important from implementation point of view are the marginals. If we have to expand a particular educational activity, we cannot do so from the average earnings but from the marginal returns. Till the marginal return is on the positive side, the particular educational activity can be expanded. But the difficulty is how to locate the marginal man, unfortunately there is no way to specify him.

As the difficulty is from the benefits side, an equally irksome job is to compute the basic cost data. Economists have suggested that while calculating the cost for finding out the 'real returns', we may also estimate the 'income foregone' by students. Critics have made objections to such a filmy estimation particularly in the countries where unemployment is endemic.

Another weakness of the approach is that it counts only the direct economic benefits and does not measure the non-economic gains which are equally important. The whole difficulty with the educational planners is how to account the indirect benefits to arrive at the total gains. Thus the balance sheet, as it is incomplete from the cost side, it is equally incomplete from the gains side and weakens the soundness of the approach.

There are few economists who do not give much stress on accounting the indirect benefits of education. They feel that the sole aim of education is not to quantify it in numbers. Even the indirect benefits are important so long as they serve the purpose of society. For instance, education for good citizenship, discipline etc. may not be able to quantify in terms of returns but a nation cannot progress without these qualities. Hence there is no point in plunging these values in the jargons of calculus. Jagdish Bhagwati, an eminent young economist has written "It has been currently become fashionable to compute measures of the 'rate of return' on investment in education. These measures, however, are based on inadequate theories which overlook many important effects of education. Nor do they distinguish between different types of education. The latter deficiency is quite serious and, if carried over to the field of educational planning, will produce disastrous results."

A further weakness of the approach is that it cannot be used for planning the entire educational system. Its best application is limited only to the various sub-sectors of education industry and helps in ranking the various programmes according to the benefits. Thus it gives the treatment in piecemeals and do not cure the patient permanently. However, like 'social demand' and 'manpower approach', it has relevance and utility. It examines the various programmes, their alternative uses and weighs the respective costs and benefits.

None of the approaches discussed above prove to be sound for planning the entire educational system. In fact, people have started thinking that a synthesis of all the three may help in solving the problem. Even this apprehension is also in the midst of doubts. The best approach for educational planning appears to be one which analyses the whole educational system—internal and external and gears it to the needs of the country. In such a process it is necessary to seek the support of top political, economic and educational leaders and the confidence of teachers, students, parents and others who play an important part at the implementation stage.

Foot Notes :

1. When educational planning is dealt in relation to economic development, it may not be misunderstood that the sole aim of education is to achieve materialistic advancements. The point which is emphasized here is that besides many social and cultural aspects, education has a great bearing on economic well-being. It is believed that "No policy for education can be relevant unless it takes into account all the economic, social, political and spiritual factors of our times and circumstances.
2. Prof. Robbins while defining Economics has said that man has unlimited wants but limited means. In other words he has limited resources to satisfy unlimited wants. In such a situation he plans his behaviour to get maximum satisfaction. Thus, planning is very much inherent in man's behaviour.
3. C. A. Anderson and M. J. Bowman, "Theoretical Considerations in Educational Planning" in George Z. F. Bereday and Joseph A. Lauwerys (Eds.), *The World Year Book of Education*, 1967;
4. Philip H. Coombs, *The World Educational Crisis: A System*
5. J. P. Naik. *Educational Planning in India*, Allied, Bombay.

7. For detailed discussion on priorities in education, please see F. Harblson, *Educational Planning and Human Resource Development*, UNESCO, Paris,
8. Jerry Miner, 'The Relationship of Educational and Economic Planning' in the *World Year Book of Education*,
9. UNESCO, *Readings in the Economics of Education*, Paris,
10. W. Lee Hansen, 'Total and Private Rates of Return to Investment in Schooling' quoted in Daniel C. Rogers and Hirsch S. Ruchlin, *Economics and Education*, The Free Press, New York,
11. Jagdish Bhagwati, *The Economics of Underdeveloped Countries*, World University Library, London,

HIGHER EDUCATION : QUANTITY VS QUALITY

B. M. SINGHI

It is a proven fact that in so far as education in our country is concerned, quantitative expansion has marred and impaired the qualitative advancement. While there is no dearth of the so-called highly educated persons, it is hard to find even a handful of persons worth the value of degrees and diplomas they obtain after wasting a number of years. This rapid fall in educational standards is reflected everywhere and at all strata in our social and national life. The products of the present day education neither fulfil the needs of the individual nor of the society. Thus education in our country has failed in its basic aim and purpose. Quite often people are heard making such cryptic remarks as "a matriculate of the olden times was much better than a graduate of today." This remark may not be wholly true, but is surely not without any substance at all.

The result is that inspite of having quite a large number of "educated" men and women holding University degrees, we find a famine of truly able and competent persons who can man and manage important and responsible posts and positions in our administration, whether public or private. In fact, most of our present day ills are born of this situation. The problem thus caused by the rapidly declining standards in education, therefore, requires effective solution before the crisis deepens further. Educational commissions and committees, high-powered or low-powered, have been set up one after another during the last thirty years to probe into these problems and suggest remedial measures so that "the standards achieved are adequate, keep continually rising and, at least, in a few sectors, become internationally comparable," but their reports have mostly proved to be mere scraps of

paper. Either such bodies, even when comprising "experts" and "specialists" have not been able to understand and appraise the size and nature of the problems or have not been able to suggest appropriate remedial measures. Even when they have made pragmatic and practical suggestions with a view to arresting the "rot", the same have been frustrated and nullified at the levels of implementation, either owing to the lamentable lack of required character and discipline among the implementers themselves or on account of the pernicious influence of the political hegemony which has become accustomed to politicalising every issue. For instance, while it has been opined that "the composition of the student body at the level of higher education is required to be considerably changed, meaning thereby that only such boys and girls, who are meritorious enough for higher education, should be allowed admission in colleges and universities", admissions continue, being allowed without necessary and proper screening of merit. To quote Shri J. P. Naik who was the Member-Secretary of the Education Commission, popularly known as the Kothari Commission, (1964), "at present, the possibility of a student availing himself of university education depends more upon the purse of his parents than upon his own talents. Consequently, we have a two-fold wastage : a large number of gifted students who ought to be in the universities are not there, due mainly to financial reasons, and on the other hand, a large number of students who ought not to be there, have been enrolled for the simple reason that they could afford the expenditure involved". There is no denying the fact that the purse of the parents does affect the availability of the admissions, but official and political influence no less vitiates the system of admissions into colleges and universities. Even Ministers, Vice-Chancellors, Principals and High Officials of the Education Departments are reported to have exercised their influence in getting admission for even such students who do not deserve the same on the basis of merit. It is indeed a sad commentary on the part of those who, on the one hand, shed

tears in Conferences and Seminars over the qualitative decline in education, and enact laws and frame rules and regulations with a view to introducing corrective measures ; and, on the other hand, indulge in unfair practices of making undue recommendations and exercising undue pressures for admission and promotions, not justified otherwise. Unfortunately, even political considerations and manoeuvres have entered the system. Naturally, if they behave like this, what is the sense in blaming the ordinary people ?

Whoever might be responsible and in whatever manner, the situation has reached a critical stage. The quantity has massacred the quality with all the consequential damages to higher education. Very impressive plans and schemes for reforms in education have been drawn and can be drawn now, but what is more important and is really needed is the faithful implementation of the same. And, it is in this that we fail. Changes in concepts, patterns and policies are not really so important as the changes in our administrative apparatus for objective and independent implementation. Unless, those, who sit in decision-making positions, whether in universities and Governmental institutions or in the institutions established and maintained by private effort, take a firm decision to remain absolutely impersonal and immune from influence and pressures, every measure will turn out to be an exercise in futility.

As laid down in our Constitution, we are committed to provide free and compulsory education for all children until they complete the age of fourteen years. In pursuit of this directive principle, our efforts to increase the number of primary schools in all parts of the country must not only continue but should be accelerated. With a galloping growth in our population, this programme is becoming more and more difficult and serious. Even at the level of secondary and higher secondary education, there is still scope for further expansion but if we are serious about maintaining and improving the

quality of our higher education, the time has come when we should cry 'halt' to the expansion programme in so far as universities and colleges are concerned. It may sound reactionary and even derogatory to many, but the bitter truth of the situation must be stated without fear of being slurred. The decision recently taken by the Government of Bihar to close down 41 colleges is indeed welcome and true educationists must be thankful for this. In this context, *'The statesman'* (Calcutta) has aptly stated in one of its recent editorials.—

"There seems indeed to be a vicious circle : pressure of numbers initially depressed academic standards : then standards continued to fall of their own momentum, or as the result of pressure tactics : finally even the most optimistic of semi-literate would—be graduates began to wonder whether the piece of paper, they might or might not get, would be worth the effort of acquiring it, even by dubious means."

In view of the above facts, one should not be surprised if some of the colleges and even universities have to be closed down. The motive behind the mushroom growth of universities and colleges has now been completely exposed. In fact, much of this growth had taken place, not on the basis of need, but on the whims of some of the politicians who wanted to bring gains and favours to the constituencies who elected them. This uncontrolled expansion has neither resulted in intellectual advancement nor in employment potential. Actually, the point of diminishing returns has now been reached.

There is no doubt that in a democratic state, as our country is, the concept of equality among people is the supreme point, but at the same time, we should not forget that "education is, almost by definition, the search for quality." Search for quality does not necessarily vitiate equality : quality is not inherently inconsistent with equality. In both the United Kingdom and the United States, which have much longer and deeper tradi-

tions of democracy, and where basic equality is enjoyed by all people, quality is not sacrificed. Equal talents are given equal opportunities, but talents are not allowed to be thwarted and suppressed for the sake of equality. It is all right for the state to evolve a common system of education for the common good of the people, but it is also imperative to allow required independence and freedom to such institutions which are in a position to work for improvement and maintenance of quality. It is in this context that the idea of extending autonomy to the more progressive and well-equipped colleges has sprung. This will also remove, as far as possible, the tendency towards regimentation and will give the autonomous colleges opportunities and scope for continual striving for search and attainment of quality. Really, the time has come when a stageback is necessary in our educational programme. What is needed is to be selective in allowing students to go to colleges and universities for higher education. Of course every boy and girl shall be given the opportunity for higher education, if he or she deserves it on the basis of merit and talent which he or she has to prove. The fear that this may aggravate divisiveness in society or may lead to elitism or parochialism is absolutely unfounded. According to Prof. V. V. John, "the pejorative term 'elitism' has been invented to lump together (and confuse) the acquisition of privilege and the search for excellence." It is absolutely misleading to say that selectiveness even though based on merit will undermine the spirit of democracy. This search for excellence will be open to boys and girls of all classes and in all areas. The rat-race for equality cannot and should not ignore the importance of individual merit. Here I am reminded of Bertrand Russell's remark that in our enthusiasm to impart equal education to all, we must not become oppressive tyrants and regiment our programmes to reduce all to the same level. Thus, there is an urgent need in our educational programme to shift the emphasis on quality and standard from quantitative growth. The sooner we realise this, the better for us.

LANGUAGE AND LANGUAGE INSTRUCTION IN INDIAN EDUCATION

M. G. CHATURVEDI

Introduction

Historical perspective :

The present position of languages as used in various spheres of public life in India is not only unique but also unprecedented in its history.¹ Because, before the modern period, relatively very few languages were cultivated and used in education, administration and other spheres of public life although there should have been many more languages in the past than what they are at present.² In ancient times it was mostly Sanskrit and some Prakrits which were used for education, cultural, literary, academic and administrative works.³ Right from the beginning of Indian history to about 10th century A. D. or so (with the exception of Tamil the literary tradition of which goes back up to 2nd century B. C.) it was only Sanskrit, which was the lingua-franca and the official language of administration, education etc. in India.⁴ It is about 10th century A. D. that almost all the modern Indian literary languages were cultivated and used for literary purposes. The Muslims, who came to India just about that time, brought with them two classical languages namely Arabic and Persian, which were used in Islamic education and administration in Muslim State.⁵ Thus during the Muslim period, modern Indian literary languages suffered a setback in the fields of administration and education as Arabic and Persian became the dominant languages in administration and education. But in all other spheres of Indian life, Sanskrit and other modern Indian literary languages continued to operate, and occasionally some of them were also used in government administration in non-Muslim States and were also taught in non-Muslim educational institutions.⁶

The British rule in India added a new dimension to the linguistic scene of India, by introducing English as a dominant language of administration, education, commerce and industry. This proved detrimental to the normal development and modernisation of the modern Indian literary languages. The predominance of English over all other Indian languages has also devalued them in the educational system of the country.⁷ The teachers of English are still more respectable in the Indian educational system in general than those of modern Indian languages.

Since independence, although more and more modern Indian literary as well as non-literary languages have been progressively used in education and administration, yet the continued use of English in higher education, administration, commerce and industries has given rise to a new language controversy in the country at present, the end of which is still out of sight, due to political fight between different language groups.⁸ Since the patterns of language used in the country are bound to change, some linguistic and language problems are inevitable and cannot be avoided. But the politics of non-linguist politicians has turned a socio-linguistic problem into a pure political controversy and efforts to end the controversy have also been made at political level only. In fact it is a socio-linguistic problem and should be dealt with at that level alone. But since the socio-linguistic studies and researches have yet to start in India, the social and linguistic components of the language problems of India have not been scientifically studied. Once the socio-linguistic components of the problem have been analysed and studied objectively, the ways and means for the solution of the problem could be developed in accordance with the language policy laid down in our Constitution and the present day language controversy could finally be set at rest.

Language Policy :

Keeping in view the language problems and the linguistic realities in the nation, it can be said that our Constitution

gives a very logical base for our language policy, which is portrayed in part XVII of the Constitution along with the 8th Schedule in reference to Arts. 344 and 351 (which specify the languages of India for the purpose mentioned in these two Articles) and the Articles concerning fundamental rights regarding language, education, culture etc.⁹ The language pattern, as envisaged in the Constitution of India, for official purposes of the Union and the States is quite liberal and democratic. It gives full freedom to the States to choose any language or languages used in the region as their official language(s).¹⁰ Thus States can recognise any number of languages spoken in its region as regional languages, and can have one or more official languages. For the Union, of course, it has prescribed Hindi in the Devanagri script for all official purposes.¹¹ But English will continue as an associate official language of the Union for an indefinite period under the Official Languages Act 1963. Thus Hindi and English have been recognised as official and associate official languages respectively for the Centre and many States and Union territories and the following modern Indian literary languages have also been recognised as State-official language by different States :

Āsān Urdu, Assamese, Bengali, Gujarati, Kannada, Malayalam, Marathi, Oriya, Punjabi, Tamil and Telugu. It may be noted that some States and Union territories have not yet decided about their official languages ; therefore, English continues in such places as an official language.

Language Policy in Education :

The Government of India and other State Governments have specified their language policies in the context of school education, which is mostly controlled by the Government and is generally compulsory. The trend discernible in various Government policy statements and the reports of different Committees and Commissions appointed by the Government to

study the language policy exclusively or as a part of the total educational system, is suggestive of a very liberal and flexible pattern of language curriculum at school level. The University Education Commission (1949) considered this question and recommended that students of the Higher Secondary as well as university stages should be made conversant with three languages viz., (i) the regional language, (ii) the general language (i.e., Hindi), (iii) English.¹² The Secondary Education Commission (1952) also considered this issue and recommended the following languages for study at secondary stage : (i) Mother-tongue, (ii) Regional language, (iii) Link language (i.e., Hindi), (iv) One classical language – Sanskrit, Pali, Prakrit, Arabic and Persian.¹³ In 1957, the Central Advisory Board of Education examined this problem in relation to the national needs and the Constitutional requirements and suggested what is generally known as the three-language formula.¹⁴ The three-language formula was reviewed by the Chief Ministers in 1961. They concluded that the child should study at school stage (i) The regional language, (ii) Hindi in non-Hindi area and any other Indian language in Hindi-area, (iii) English or any other modern European language. Later the Education Commission (1964-66) examined the implementation of the three-language formula in different States and Union territories and after having studied the difficulties experienced by the States and Union Territories in implementing the same, it recommended a modified graduated three-language formula, according to which the teaching of mother tongue or regional language has to begin from the very first class and has to go up to tenth standard i.e., first language is to be taught compulsorily for ten years.¹⁵ The second language could either be Hindi or English, which is to be taught compulsorily from standard V to standard X i.e., for six years. Besides first and second language, Hindi or English whichever is not studied previously, is to be studied as third language for three years compulsorily from standard VIII to X. During these three years a student can also study optionally one or more modern Indian languages. At higher secondary stage, a student has to study

compulsorily any two of the languages, he has studied earlier or any two of the following :

1. Modern Indian languages
2. Classical languages (Indian or foreign)
3. Modern foreign languages and one of the modern Indian languages optionally.¹⁶

Although the three-language formula has been accepted under the new pattern of education (i.e., 10+2+3), but it is not the same as detailed in the Kothari Commission's report. Under the new scheme a child at the completion of ten years of school should be competent in the first language, be able to understand and express himself in second language and be able to comprehend the third language in its ordinary printed form.¹⁷ It is hoped that the first language would usually be the mother-tongue of the child, the second language would be Hindi, if it is not the mother-tongue and the third language would be English or any other foreign language. Sanskrit or Persian could be introduced as a part of the first or second language or introduced separately as an additional subject. The first language is to be introduced from Class I, the second language from class VI and the third language from Class IX¹⁸. Thus it can be said that at the school stage of education generally three languages are compulsorily studied besides some optional languages in higher secondary classes. But at the University stage the situation is just the opposite, as generally only one language, which is also the medium of instruction, is studied compulsorily, and that too in some faculties only for a year or two.

It can be said that generally a child in school is required to learn three languages compulsorily but in universities it is only one language which is generally the medium of instruction. This is a reality of the Indian educational system ; but is this situation desirable on some rational criteria, or is this so just because it is so ? The functional utility of teaching three languages at school stage and one at University stage (that

too for a year or so) is a question which has not yet been considered by the planners of language in education and language in general in India. This is a situation which needs to be looked at from the scientific point of view. The language policy of teaching languages in the educational system has got to be in consonance with the general language policy of the nation on the one hand, and linguistic and educational needs and requirements of the people on the other.

Linguistic reality of India :

Whatever may be the language policy of the Government for school and/or university education, very many languages are to be studied and used as media of instruction as India is a multilingual country. In planning an educational system, it is not only the Governmentally or officially recognised languages which matter most, but all other languages spoken by the school-going children are equally important. And for many cultural, academic and educational considerations instruction for many more types of languages like the Indian classical, foreign classical and modern foreign languages has also to be planned in the educational system.¹⁹

According to the Census Report of India (1961) there are 1652 mother-tongues belonging to Indo-European, Dravidian, Austric and Sino-Tibetan families.²⁰ The Constitution of India, although recognises every language spoken in India, but mentions only fifteen languages in the Schedule VIII, eleven of which have been recognised as official languages at Central and/or State level. These languages are in fact the major literary languages of India covering 87% of the entire population of the country.²¹ Although there are as many as 1652 mother-tongues in India, as reported in the Census of India (1961), the fifteen languages specified in the Constitution are not only spoken by 87% of the population but are distributed in most of the States and the Union Territories of India and have long and rich literary traditions of their own. This should be evident from the following table based upon the Census of India 1961.

STATES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Assamese	Bengali	Gujarati	Hindi	Kannada	Kashmere	Malayalam	Marathi	Oriya	Punjabi	Sanskrit	Sindhi	Tamil	Telugu	Urdu
1. Andhra Pradesh	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
2. Assam	...	S	S	S	S	S	S	S	S	S	N	S	S	S	S
3. Bihar	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
4. Gujarat	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
5. Jammu & Kashmir	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
6. Kerala	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
7. Madhya Pradesh	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
8. Maharashtra	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
9. Mysore (Karnataka)	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
10. Nagaland	...	S	S	S	S	S	S	S	S	S	N	N	S	S	S
11. Orissa	...	N	S	S	S	S	S	S	S	S	N	S	S	S	S
12. Punjab*	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
13. Rajasthan	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S

* Punjab—Includes Haryana and Chandigarh.

States	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
14. Tamil Nadu	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
15. Uttar Pradesh	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
16. West Bengal	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
UNION TERRITORIES :															
1. Andaman Nicobar	...	S	S	S	S	S	S	S	S	S	N	S	S	S	S
2. Dadra & Nagar Haveli	N	N	S	S	S	N	S	S	N	N	N	S	N	S	S
3. Delhi	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
4. Goa, Daman & Diu	...	N	S	S	S	N	S	S	N	S	N	S	S	S	S
5. Himachal Pradesh	...	S	S	S	S	S	S	S	S	S	N	S	S	S	S
6. Lacadive Islands	...	N	N	S	S	N	S	S	N	S	N	N	S	S	S
7. Manipur	...	S	S	S	S	S	S	S	S	S	N	S	S	S	S
8. NEFA	...	S	S	S	S	S	S	S	S	S	N	S	S	S	S
9. Pondicherry	...	S	S	S	S	S	S	S	S	S	S	S	S	S	S
10. Tripura	...	S	S	S	S	S	S	S	S	S	N	S	S	S	S

Distribution of the fifteen languages of India in different States and Union territories. Based on Census of India, 1961

S = Spoken by more than 10000

S = Spoken by less than 10000

N = Not spoken.

But it should be noted that these are not the only languages which are to be studied in India. There are many other, both literary as well as non-literary, modern as well as classical, and native as well as foreign languages, which are to be studied and are being studied at different levels in different forms. We may discuss, therefore, in brief the educational languages of India.

Educational languages :

As per our language policy and the problematic linguistic reality in the country, it is obvious that we have to provide for the teaching of all those languages in our educational system which are, or are to be used in administrative, commercial, industrial, socio-cultural, scientific and literary fields on relatively larger scale. Therefore, it is necessary that we select for teaching purposes only such languages on some objective criteria, such as, number of speakers, spread of the speakers in different areas, the literary cultivation of the language etc. At present, on such and other educational considerations sixty seven languages have been selected and specified to be taught and/or used as media of instruction at different stages of school education in different States and Union Territories in India. These languages may be termed here as educational languages and may basically be divided into two groups ; I. Medium languages and II. Subject languages. If English is considered to be a modern Indian language, then all the modern Indian languages may be considered to belong to the first group and all other types of languages to the second group. But it should be noted that there are some modern Indian languages which are taught as subjects but not used as medium or used as medium in only primary classes.

It is interesting to note that not only the number of languages to be studied under Indian educational system is quite high, but the whole situation of language teaching and learning in India is very complex, for there are very many languages, of different types, with different levels of culti-

yation, distribution and functional uses, which are to be taught in different forms with very different objectives, and levels of attainments to very different types of learners both children and adults. And the worst part of the whole affair is that it is conducted with the help of defective and insufficient instructional materials by technically unqualified teachers. With the help of the following table, some aspects of the complexity of language teaching and learning in India may be understood, which is based upon a study conducted by the NCERT, New Delhi, in 1971.

TABLE

S. No.	Specification	Total Number
1.	Educational languages	67
2.	Medium languages	51
	Major Medium languages	16
	Minor Medium languages	35
3.	Compulsory First language	59
4.	Compulsory Second language	23
5.	Compulsory Third language	24
6.	Optional languages	34
7.	Modern Indian languages	50
	Modern Indian literary languages	20
	Modern Indian tribal languages	30
8.	Indian Classical languages	3
9.	Modern Foreign languages	7
10.	Foreign Classical languages	7

The languages to be taught at the school stage in India therefore may be classified in the following categories :

- | | |
|--|--|
| A. Modern Indian Languages | To be taught as |
| I. Standard literary official languages | Mother tongue, first language and second language and to be used as media of instruction. |
| II. Non-literary, non-official languages | Mother tongue and to be used as media of instruction in the first few years of school education. |
| B. Modern foreign languages | Second language and foreign language. |
| C. Indian classical languages | Classical languages. |
| D. Foreign classical languages | Classical languages. |

Problems of Language Education :

The national language policy provides the necessary guidelines for planning language programmes for the different stages of education. But since language instruction in itself is a very complex affair, it is necessary that the nature of the learner and learning processes, teacher and teaching techniques and methods, teaching materials and aids etc., should be considered and studied. Extension research and investigation are needed in all these areas of language instruction in order to plan and implement effectively the language programmes in educational system. Therefore, once the languages to be taught as mother tongues, first, second, foreign or classical languages are specified, qualified teachers should be prepared for teaching these languages through requisite training in linguistics, psychology of language learning and a thorough mastery over the languages to be taught. This should proceed simultaneously with the prepara-

tion of curriculum and instructional materials and aids. In such an event, the national language policy can be implemented and realised.

But it can happen only when the linguistic reality is properly understood, different models for teaching of various types of languages for various purposes in accordance with the national language policy are scientifically developed and the linguistic models so developed are applied in the educational system at school as well as at the University stage.

Thus the problems of language teaching and learning in India can be summarised as follows :

- I. Objective study of the language policy of the nation (including that of all the States and Union territories) in relation to the linguistic needs and aspirations of the people.
- II. Study of the existing linguistic reality as well as the expected linguistic structure of the nation as a result of the accepted national language policy.
- III. In accordance with the national language policy, specification of the languages to be taught as mother tongues, first, second, foreign or classical languages, along with the mother tongues the speakers of which are to be taught the specified languages.
- IV. Specification of objectives for which mother tongues, first, second, foreign or classical languages, are to be taught in educational, behavioural and linguistic terms.
- V. Linguistic analysis of the languages to be taught and their contrastive studies with the actual mother tongue of the learner.

VI. Planning of curriculum and development of material for both teaching and learning.

Conclusions :

It should be clear from the above discussion that the language teaching and learning in India, particularly at the school stage is basically problematic, as originally it was not properly planned keeping in view all the factors involved ; such as tradition of language use in public life in the various regions of the country, language policy of the Government, language needs of the school-going children, the linguistic structure and literary cultivation of the languages to be taught, i.e , target languages and the mother-tongues of the people to whom target languages are to be taught, etc. The way language instruction has developed in our educational system during the past two hundred years or so is also a factor besides many others responsible for the present state of affairs. The present day language teaching and learning in India, it is a fact, was initially conceived, planned and executed by foreign rulers, who were not only ignorant of the linguistic realities and needs of the country but were also disinterested in developing Indian languages as well as education through Indian languages. Hence from the very beginning there have been very few Indian languages in our educational system with practically no functional importance or official recognition. As a matter of fact the growth of modern Indian languages in our educational system, has been very slow and haphazard during the British period, and after independence, although many new languages have been introduced, their introduction has also been more or less slow and haphazard. Even now, there seems to be no systematic planning before introducing any new language in the educational system. One can cite examples of languages in our educational system for which neither there are qualified teachers, as these languages are not studied at the University stage nor are there the necessary instructional methods and materials. The

tradition of treating language as a school subject rather than as a medium of all school subjects ; i.e., the foundation of the total school curriculum, has also led the planners of educational system astray. For the language, the medium of the total instructional programme has usually been taken for granted by the educationists and even those, who teach languages mistake language to be just its creative literature and formal grammar. Thus the objective-oriented scientific planning of language instruction, although desired, is not to be found in our educational system.

On the basis of what has been discussed earlier, it could be stated that the nation has a very well-defined and basically a democratic national language policy as laid down in the Constitution. But since the linguistic reality in the nation has been very unique due to many historic reasons, it has consequently been misunderstood and certain linguistic fallacies like the recognition of Hindi and Urdu as two languages, rather than as two styles of the one and the same language, have crept into the Constitution also. That is to say, the linguistic structure of the nation, both formally and functionally is very peculiar, as it is multilingual in character, but at the same time being a 'linguistic area' it is linguistically very well integrated.²² S. K. Chatterji says in this connection that there is a fundamental unity in the literary types, genres, and expressions among all the medieval and modern languages of India as there has been a gradual convergence of Indian languages belonging to the different linguistic families ; Aryan, Dravidian, Sino-Tibetan and Austric towards a common Indian type after their intimate contact with each other for 3000 years.²³ But because of this very fact, the linguistic reality in the country has generally been misunderstood. And the educationists have failed to plan the language studies in our educational system both at school and University levels. As a result of this the desired changes in pattern of language-use in our country have not been possible as envisaged in our Constitution.

Footnotes :

1. Chaturvedi, M. G., *Language Teaching and Learning in India*, p. 5, NCERT, New Delhi,
2. *Report of the official Language Commission (1956)*, p. 249, Govt. of India Press, New Delhi,
3. Ibid, p. 21.
4. Chatterji, S. K., *Languages and Literatures of Modern India*, p. 3, Bengal Publishers, Calcutta,
5. *Report of the Official Language Commission (1956)* pp. 21-22, Govt. of India Press, New Delhi,
6. Chatterji, S. K., *Languages and Literatures of Modern India*, pp. 3-4, Bengal Publishers, Calcutta,
7. *Report of the Official Language Commission (1956)*, p. 25, Govt. of India Press, New Delhi,
8. Chaturvedi, M. G., *Language Teaching and Learning in India*, p. 6, NCERT, New Delhi,
9. The Constitution of India, Part XVII, Ch. I. IV. Art. 343-351 ; Part III, Art. 29, 30 ; Part III, Ch. III, Art. 210 etc.
10. Ibid., Part. XVII, Ch. II, Art. 345.
11. Ibid., Part. XVII, Ch. I, Art. 343.
12. *Report of the University Education Commission (1948-49)*, Vol. I, pp. 126-127, Govt. of India Press,
13. *Report of the Secondary Education Commission (1952-53)*, p. 49, Govt. of India Press,
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15. *Report of the Education Commission (1964-66)*, pp. 187-91, Govt. of India Press,
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17. *The Curriculum for the Ten Year School Framework*, p. 24, NCERT, New Delhi,

18. Ibid.
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TEACHING OF SOCIAL SCIENCES IN INDIAN SCHOOLS

R. P. SINGH

The concept and teaching of social sciences have undergone several changes in the past few decades. Historically, as Humayun Kabir put it, "there was no separate provision for the study of the social sciences in India until recently". Writing in the early '1950s Prof. Kabir had pleaded in favour of its teaching in India because of three specific reasons : (a) the failure of achieving a common system of national education, (b) the urgent need to achieve in this country in decades what Europe had achieved in centuries and (c) India's decision to carry out vast changes in her social, economic and cultural life by democratic means. The logic and the rationale behind these reasons has lost nothing of its relevance to this day and indeed the third reason has today to be given the highest priority. Now that we are close to launching a national system of education, an analysis of the contemporary trends would not be out of place here.

Until 1947 the purpose of teaching social science subjects was to help Indians reconcile themselves with their 'second class' status in society. Books on history portrayed us as highly uncivilized until the Europeans' arrival. Extreme examples of backwardness either in education or social beliefs were held out as an objective reality. Similarly, the superiority of political ideas and institutions of European origin was undeniable. The assumption appeared to have been that there existed an unwritten law which made Europeans superior to others and the pigment of skin apparently had positive correlation with the wisdom or non-wisdom of the people. It was within this logical frame that European history, political science, philosophy, economics and even geography were taught in India. Wisdom as also learning flowed from the centres of colonial administration and the capitals of the

ruling races. It stood to reason that all knowledge had first to be created and learnt in the home-land of the masters. Only that part of this knowledge was to be transmitted to the colony which was both deemed desirable for the ruled to acquire and that which did not give them 'ideas' beyond their station. If one looked at the textbooks prescribed in India upto the 1940s, one would be surprised to notice how cleverly the rulers were trying to convince us that we had neither the intelligence nor the acumen to govern ourselves. There was nothing that Indians could do themselves or had the wherewithals of living in a 'modern' world completely unaided by the British. There was also a tendency to show that India was not a nation and that the multiplicity of religions, cultures and languages merely underscored the certainty of a political split and social turmoil once the Whites withdrew. It appeared Indians had been lucky to have been gifted benevolent rulers. The crudity of ideas behind prayers said by students before the classwork started, and the universal praise of European institutions *and* raise in the minds of the few educated doubts both about the competence of the Indians to govern themselves or their capacity to hold together in the face of so much of divergence of beliefs and plurality of cultures.

The independence however did not bring about either clarity of social goals or even a decision regarding the re-orientation of our educational system. While educational "patchwork" was being planned, the country was suddenly exposed to another set of value-systems. Big Power rivalry, cold-war and the doctrine of 'regional balances' made India feel once again helpless. The international influences swept even the most of the Indian scholars off their feet. India, however, acquired a slightly more dignified status than that of a 'colony'. It was now the victim of neo-colonialism which brought money to some and 'ideas' to others. The social distances and inequalities were sought to be justified on the grounds of colourful diversity as against a soul-killing uniformity. The other change was in giving preference to an

amalgam of watered-down disciplines to the old discipline-approach in teaching Social Sciences. The rationale behind all this was that the former was 'holistic' in treatment of society than the compartmentalized disciplines. The Social Studies as this replacement is being called is the post-independence phenomenon and the direct impact of a Great Power.

Let me remind the readers that the conflicts in the minds of the Indians did not terminate with our independence. It takes long to live down the ideas once imbibed. With independence the nature and dimensions of this conflict increased immeasurably. Indians found it difficult to reconcile western institutions with Indian culture. Institutional transplants apart, the need to industrialise and create its own resources to develop and plan had their impact on the teaching of Social Studies in schools. A similar change is noticeable at the university level also. The 'Models' of progress were all Western and the assumption remained glued to the position that salvation of the country lay in following one or the other European models of progress. The indices of progress were furnished by Europe and the quality of life was determined in terms of per capita earnings and expenses coupled with a high rate of consumption of items like energy, food, cars etc. No one ever paused to decide why should any particular European model be regarded as desirable or the best. Prof. Humayun Kabir's plea cited above is a characteristic example of the Indian thought in the early 50s.

A close examination of the teaching of social studies at the school level in this second phase of development would show that some progress had been made from the earlier position. Specifically defined, the pre-1947 teaching of Social Studies was :

- (a) Europe-centred outlook in all subjects like history, geography etc.

- (b) Study of Indian as well as other countries in history, geography and civic and political institutions through British (Tory-Liberal) eyes etc.
- (c) The teaching of these subjects was completely unrelated to the needs of a conscious citizenship.
- (d) More glaring was the absence of a scientific attitude in both teaching and organising content material.

Whereas in England Social Studies means generally teaching contemporary social situation and problems, in India it had altogether a different connotation. It was a mixture of watered-down subjects like history, geography, civics and not their real synthesis. Being put between two stools, it was really neither here nor there. Consequently, one could discern a sort of regression in teaching about the society to the older formula of exposing a child to the ever-widening concentric circles starting from the individual and moving out on to the world and the cosmos.

The newness of the content became stale no sooner one tried to analyse the nature of the approach. Similarly, in the teaching of history as a subject newer interpretations were made possible by a simple re-arrangement of the content and by changing emphases on one factor as against the other. As more and more books started pouring in the market, it was assumed that there was a sudden explosion in knowledge. Without examining the nature of this explosion and perhaps even without going deep into its history, we merely agreed that this was so. In fact what had happened was that a revolution had taken place because of the invention of the printing press and because of the demands of social justice, there were more pupils in schools and colleges than before. The scientific discoveries and inventions further complicated the scene. The degree of specialisation increased in direct proportion to the demand of such knowledge. So instead of providing the same information to all, we restricted the fields

of knowledge in scope and increased the possibility of interpretations of the existing quanta of information. It was an entirely new situation and I do not think this is what we mean by explosion in knowledge or newness in approaches to the teaching of school subjects.

Against this background I think we have now entered the third phase of change in the teaching of social science subjects. This phase is marked by a much greater understanding of the social reality and the world we are living in than ever before. The turning point was the remark contained in the Report of the Education Commission (1964-66) when it said: "The school curriculum is in a state of flux all over the world today. In developing countries it is generally criticized as being inadequate and outmoded, and not properly designed to meet the needs of modern times". It naturally means that to remove existing inadequacy, a new curriculum had to be suggested.

The curriculum under preparation and the textbooks being planned for the new pattern of education are marked by certain characteristics corresponding to the changes that have taken place in India. We are conscious that not only basic inequalities in our society should be removed, but also the root cause of our general backwardness be eliminated. Towards teaching of all school subjects there is an underlying scientific attitude which is equally apparent in the content arrangement as well. Efforts have been made to impart a clear idea of the concept of various social science subjects. For instance, the content of Geography today is quite different from what our parents learnt. We emphasise on the role of man in changing his environment. Geography should not determine man's life. He can change it, overcome it. There is an emphasis on economic geography as against purely physical geography. The determinants of human life are gradually being identified and there is a tendency to talk more about how natural resources can be properly utilized and supplemented. It is a

new dimension added to the teaching of social sciences as a whole.

Teaching of history is also markedly changed. We not only talk of the history of mankind, but wish to expose the causes of bias and prejudices in historical writing. There is a good deal of emphasis on interpreting facts and being as objective as it is humanly possible. No longer do we use history to condemn or justify people or their behaviour by giving superficial examples. Primarily we are concerned with the how and why of change and also providing insight into the nature of society. Past is not to be venerated, it has to be critically evaluated for its contributions and basic weaknesses.

Contemporary goals of Indian society like secularism, socialism, creation of scientific attitude etc., are important. These have considerably modified our approach to reading history. We wish to be rational, unbiased, impartial and also free ourselves of the myths about past heroes and regional glory. The entire history is being freed of dynastic approach. The life of man in a society seen against the backdrop of his gradual social and economic advancement is more important than the life style of a Great Moghul.

We cite here a few lines from *A Framework* of the NCERT which has a direct bearing on the topic under discussion. It should also throw light on the contemporary thinking of our educational leaders.

4.24 : The major objective of the study of the social sciences is to acquaint the child with his past and present geographical and social environment. An effective programme of teaching of the social sciences in schools should help the pupils to take a keen interest in the ways people live and function through various

socio-economic and political institutions. It should also help children to develop an insight into human relationships, social values and attitudes. These are essential to enable the growing citizen of tomorrow to participate effectively in the affairs of the community, the state, the country, and the world at large.

4.25 : The teaching of the social sciences should enable children to appreciate India's rich cultural heritage as also to recognize and get rid of what is undesirable and antiquated, especially in the context of social change. The schools should see that narrow parochial, chauvinistic and obscurantist tendencies are not allowed to grow in our pupils. The schools should endeavour to develop a will and ability in every pupil to participate in the most important task of the reconstruction of our society and economy with a sense of social commitment. Children should also develop a faith in the destiny of our nation in terms of promoting a spirit of tolerance and assimilation, and peace and harmony among the peoples of the world. Thus instruction in the social sciences should promote the values and ideals of humanism, secularism, socialism and democracy. It should inculcate attitudes and impart the knowledge necessary for the achievement of the principal values of a just world order, maximization of economic and social welfare, minimization of violence and maximization of ecological stability.

4.26 : The study of the social sciences in Classes I-X should include the study of history, geography, civics and economics. In view of the limited time that will be available for each of these branches, it would be desirable to integrate their teaching in a way that the pupils develop a proper understanding of the facts and problems in the right perspective without causing any damage to the totality of the individual disciplines. This would require identifying the essential units in each of

the subjects and then unifying them into an integrated syllabus for the social sciences.

Four major purposes of teaching social science subjects in our Schools today get highlighted :

- (a) helping our students to take keen interest in learning about our social and political institutions ;
- (b) appreciating India's rich cultural heritage ;
- (c) developing a will and ability to participate in the task of the reconstruction of our society and economy ; and lastly :
- (d) learning social science subjects in an integrated manner without damaging the totality of the individual disciplines.

To a large extent the position as stated in the *Framework* is an advancement over the thinking that prevailed during the second phase. For instance, the *Framework* talks of two most significant things. One concerns social commitment for the reconstruction of Indian society and the other respecting the individual disciplines without undermining the importance of the 'holistic' viewpoint. The new curriculum under preparation should reflect this thinking. For once we have stopped regarding the Western models of progress as the only desirable ones. Similarly, in terms of stages of progress, it has been noticed that one could easily skip several stages, without doing any damage to either the society or progress. While we are thinking of developing our own country, we are interested in helping out others with the expertise that we have acquired over time. It is an entirely new dimension which had been rarely thought of. This information as it is being passed on to our children through social science teaching boosts their morale and builds up confidence in the nation's destiny.

We must also think of the phase beyond the present one and this for the sake of continuity I would call the fourth phase. We know as yet very little of what the future would be like. All the futurological studies being conducted these days have to face couple of uncertainties. For instance, we do not know as yet whether India's population growth would be finally contained and brought down to the zero growth level. We have no knowledge whether alternative sources of energy, if they are inexpensive, would not result in sudden national prosperity. We have no idea whether or not universal education would finally mean the creation of a new value structure class composition in this country. If concerted efforts of the Indians resulted in anything positive, we are likely to become exporters of foodgrains. But these uncertainties have to be taken in one's stride. We should start at least a discussion even on purely hypothetical basis of the likely direction we would be moving in. This should help us to be more need-oriented and business-minded than what we have been thus far. If the plea is not to make us complacent and vain, it surely is to develop our own strategies of educational planning, teaching methods, economising resources and becoming self-reliant vis-a-vis our needs in the world of tomorrow. And does not all this fall within the framework of social sciences which while acquainting a person with his past also prepare him for future. This I believe should be characteristic of the fourth phase where leadership role of Indians would have to be properly emphasised.

THE CONCEPT AND ROLE OF THE HUMANITIES AND SOCIAL SCIENCES AT THE UNDERGRADUATE LEVEL

T. A. MATHIAS

One of the most heartening and nationally important developments of the last 25 years is the belated attention now being paid by the University Grants Commission to the development of the humanities and social sciences in colleges and universities. There is no denying the fact that for the last quarter of a century, the development of science and technology have received pride of place among the concerns of every successive Ministry of Education and among those of the University Grants Commission. Hundreds of crores of rupees have been spent in setting up and maintaining a chain of National Laboratories ; in building and staffing magnificent national and regional institutes of technology, medical sciences, agricultural sciences ; in importing the most sophisticated equipment and the latest books. The Kothari Education Commission's Report only strengthened this trend by viewing education as the principal tool for the social and economic transformation of the country. The Report does indeed state that development must be viewed in a broad way, so as to include all of India's "national objectives", such as consolidation of democracy, strengthening of secularism, hastening the process of modernisation, increasing productivity and promoting moral and spiritual values. However, there is no doubt that economic productivity is the prime consideration throughout and most of the recommendations are geared to ensuring this objective.

Need for Science and Technology

This is understandable, for without considerable economic growth and improvement of the desperately low standard of living of the masses, all other factors become largely illusory.

The well-fed must resist the temptation to spiritualise the concept of development. We must not allow ourselves to romanticise the past and view it as a golden era. For the fact is that all traditional civilisations, such as India's, were geared to the tastes and needs of the elite classes who were thus able to develop refined tastes and a high standard of living shown by the splendid monuments and palaces, they erected; but these were achieved at the cost of the sweat, toil and exploitation of the masses. As K. G. Saiyidain says in one of his books: "these traditional civilisations were like beautiful roses growing out of a dunghill, the dunghill of human oppression, or like a magnificent feast laid out for a dozen persons, while hundreds looked hungrily on from the outside". Obviously a country which wishes to give all its people a fair deal cannot tolerate such a state of affairs any longer. It must, therefore, promote those means of production which will ensure the intensive and yet rational exploitation of its resources and the production of a wide spectrum of quality goods which will be available to the masses of the people at low prices. To achieve this, modern science and technology are indispensable.

However, we should not proceed from this undeniable proposition to a naive belief in the omnipotent capacity of science to solve all human problems and to produce a heaven on earth. This sort of childish optimism has grown sour in the last few years in those very countries where science and technology have made the most spectacular progress leading to unimaginably high standards of living. It is now clearly seen that technology is proving to be the Frankenstein's monster that threatens to destroy human civilisation. It speeds up the pace of life to levels at which the human organism can no longer function without the danger of serious psychological disturbances; it induces a rising thirst for new comforts which can only be met by an ever more competitive type of life; it makes disproportionate demands on the limited natural resources of the planet whose depletion and eventual

exhaustion can even now be envisaged ; it chokes rivers and streams, pollutes the atmosphere, destroys the natural environment often in an irreversible manner with mountains of refuse, rivers of effluents and clouds of corrosive gases. One must also mention the dangers of science and technology when it comes to the processes through which powerful nations attempt through spying, through wars and trade restrictions, to impose their will on weaker ones.

Technology to be Directed Role of Humanities and Social Sciences

It is obvious therefore that science and technology while being important have to be properly *directed* if they are to result in maximum prosperity for the nation as a whole. Directing the use of science and technology means that a nation must first decide its own objectives and determine what it aims at in the way of economic growth and an improved standard of living for the people. For instance, should we aim at providing every citizen with a private motor vehicle as in the West, or should we rather decide to go in almost exclusively for rapid, cheap and safe public transport as in China ? Should we develop sophisticated medical centres providing such techniques as organ transplants, or should we rather concentrate all our resources to ensure basic medical care for the forgotten rural masses ? Should television be rapidly developed, and if so, with what type of programmes ? Should our aim be to provide a regular schooling for all, or should we rather develop informal educational processes, so as to reach the largest number of people in the shortest possible time ?

Decisions, such as these, concerning direction of science and technology and of the social change they produce, are of crucial importance for the proper development of a country, for the welfare of its people, for the promotion of social justice, and for the ultimate greater happiness of the entire population.

Now it is my contention that science by itself is incapable of giving an adequate response to such questions of direction since the natural and even compulsive trend of science is towards the use of more and more sophisticated machines and towards ever-increasing speed: from propellor planes to jet transport and now to an SST is the inevitable progress of technology left to itself. Technology has a dynamism of its own which is almost independent of the human being; it has necessarily to advance in a particular direction; it cannot call a halt and still less regress, even if these courses are found to be necessary for the true welfare of man. The characteristic of modern science is to be cut off from the great existential questions of life: what is life? why is there life? what is the meaning and direction of human history? what are the conditions of human happiness? etc. People who contest this view maintain that science by itself is "neutral"; its misuse is to be attributed to the politicians and others who divert science and technology to unworthy ends. While agreeing that there is some truth in this, one can hardly contest the fact that the *mentality* created by a unilateral insistence on science and technology in education is not *neutral*. It warps the minds of the young by focussing them exclusively on one aspect of human life and making them oblivious to the fundamental questions concerning human existence. This is why the most prestigious institutes of technology in foreign countries and now also in India insist on their students going through fairly substantial courses in the humanities and social sciences in the hope that the students will be able to combine the objectivity, the precision, the analytical approach and the passion for clarity which are characteristic of the scientific temper with the synthetic, intuitive, human outlook that is part of the culture of the humanities. To achieve this end, however, it is essential that the teachers of the humanities and social sciences should not be so overawed with the methods used in the physical sciences as to attempt a slavish imitation of them. Much of the value of the humanities and the social sciences is thereby

destroyed. This is an important point which deserves close attention by teachers of the social sciences : how far they can develop methods of study and research which are characteristic of their own disciplines.

If it is accepted that the direction of science and technology is a matter of supreme importance and that this cannot be left to the scientists themselves, then the importance of the "humane" disciplines becomes clear. The social sciences, philosophy, history, religion are immediately related to man and his life and destiny ; they are capable of and indeed intended to, producing those judgements of direction and value in relation to human welfare, which must necessarily intervene in the technological development of a country if disaster is not ultimately to ensue. What then will a nation do if only its third or fourth best young men and women go in for these disciplines. How can they make competent studies of the results of scientific development ? What will be the value of their reflections on the culture and the value system of the country and the influence that technology is having on them ?

Special Need for Humanities in Ancient but Modernising Countries

Secondly, The need for the humanities and social sciences becomes even more urgent when we are dealing with a modernising country which has a great and ancient culture and value system, particularly if these are based on religion. This is the case with India. Now there are two aspects in a religion-based traditional culture. The first is that there exist authentic human values of perennial importance and the second is that attitudes and an outlook are often generated which can be inimical to economic and social progress, to increased productivity, social justice, secularism—all of which are essential elements in India's development programme. The humanities and social sciences have an important part to play under both these aspects of India's culture.

Only through their help it will be possible to discern the core values of our ancient civilisation and to distinguish them

from the peripheral accretions that have accumulated through the ages. Once this is done, it will be the task of the humane disciplines to devise means for strengthening these core values, despite industrial, scientific and technological progress and the rapid social changes they bring in. Physical scientists are generally in no position to render these invaluable services to a country. Most of them would be incapable of distinguishing core values from peripheral accretions and they often have the tendency to dismiss everything as other-worldly, superstitious, irrelevant and of course, unscientific, which is the favourite and final condemnation of all.

Under its second aspect, a traditional culture can undeniably throw up powerful obstacles to the process of modernisation of a country and thus stand in the way of its total human welfare. This happens when customs and traditions which have lost all significance in the world of today are still clung to with as much and even more tenacity than the central values of a culture. When a religion-based culture thus resists the natural process of adaptation to the changing needs of man, then there are only two possible results. The first is that the religion will survive but the people who profess it will remain backward and primitive. The other is that the religion itself will be swept away by the irresistible surge of science and technology and the mentality they create. The American author Knap and several others think that India is completely incapable of becoming a modern state owing to the unshakable hold that ancient Hindu culture has over the people's mind. The Hindu philosopher Sarin on the other hand, believes that Hinduism itself is unable to withstand the onslaughts of science and technology and will inevitably be swept away, as a religion, surviving only as a vague form of spirituality.

Now anybody who appreciates the eternal values that Hinduism has within it and who also wants to see this country and its people advance must envisage either of the above

alternatives with dismay. It is my contention that only the humanities, the social sciences, philosophy, theology can prevent either fate from overtaking our country. Only these can assist in the essential process of modernisation and adaptation to changing needs which every religion and culture have to go through, lest they become a relic of the past, irrelevant to the needs of today.

In this way the humanities and social sciences can help to produce a culture which will be distinctly modern and distinctively Indian ; they will enable us to distinguish the core values of our culture and to preserve them, not by combating the cultural values of science but by blending the two, so as to form a harmonious whole which is recognisably modern and yet obviously Indian.

Democracy, Social Justice and Development

Thirdly, in developing countries like India which have chosen the path of freedom and democracy, the social sciences have particular importance -they must show how development can be promoted *together* with social justice. Our people have the right to *both* freedom *and* justice, to liberty *and* bread. However, there is no doubt that if care is not taken, rapid industrial growth in free-enterprise societies can lead and has often led to, increasing injustices and a widening gulf between the rich and the poor. The economist, the sociologist, the philosopher must develop tools for the proper analysis of present society and its trends ; they must conduct studies on the imperatives of social justice and how to combine a forward-looking, growing economy with the proper distribution of its products and a real sharing by the common man in its processes. This is the only way in which we can hope that India will make progress without the danger of a violent revolution.

In this connection, the present moment in the history of India is particularly opportune for social and political scientists, philosophers and others to make a serious study of the

concept of democracy and its implications ; the relationship between legislature and judiciary ; the limits of personal freedom, if any ; how these limits are to be determined ; the place of property rights in a democracy ; the best way of ensuring participation of the people in the process of decision making ; the form of democracy that is best suited to the temperament and the traditions of our people ; the role and the limits of the press ; etc., etc. These are obviously questions of the greatest importance on which unfortunately few serious studies have been made against the background of our own country. Most of us have generally been content to accept the views propounded by Western countries without significant critical analysis regarding their suitability to our own needs.

Rapid Social Changes Coming Over India

Finally, we have been speaking of the social changes that are rapidly overtaking India. It is of great importance that the social sciences should discern these lines of change as clearly as possible, so as to adapt the educational, social, economic and political systems to the needs of the future. As I see it, the following are the most important directions of change taking place :

1. A growing understanding and appreciation of the equality of all men and women regardless of race, creed, sex, colour and social status. This is seen by the crack-up of colonialism, the condemnation of racial and caste discrimination, the demand for equal rights for women. ;
2. An increasing demand, chiefly among the young for social justice and for an end to oppression of whole classes of people. This is shown by the appreciation being shown for China all over the world as a country that has achieved a large measure of social justice, even at the cost of violence and regimentation.
3. An acute sense of personal dignity and responsibility and a refusal chiefly among the young to accept with-

out question the norms and values of their elders. A proof of this is the revolt of youth all over the world, and their insistence on guiding their own destinies.

4. A fast diminishing appreciation for titles, degrees, position and external show and an increasing value being attached to personal competence and sincerity. This is shown by the new recruitment policies being pursued by many industries.
5. A growing recognition all over the world that humanity lives in a unified, interdependent world where no single part of the world can in future prosper at the expense of others. This is reflected in the vociferous demand for a revision of international economic structures, so as to give the poor countries a better deal. It is also shown by the cultural exchanges now taking place between East and West.
6. Finally, the change which is responsible for all the others is the rapid growth in the technology of communications which has brought the various countries and races closer together for good or for evil.

Inevitably these changes are affecting our own young people and it is essential that politicians, administrators and educators should understand the changes and the demands they make on the educational system of a country. If we do not adjust our educational methods and policies to the needs of the future, we shall be producing young men and women in revolt against the society and the educational system that is attempting to form them for a bygone age.

These then are some of the broad national considerations and perspectives in which we find the real rationale for any programme to improve the study and teaching of the humanities and social sciences in our universities, so as to reverse the demoralisation that is today visible in the non-science departments of most colleges which feel they are being treated as step children of the university. This is exactly the purpose of

the College Humanities and Social Sciences Improvement Programme (COHSIP) set up by the University Grants Commission.

The U G C has clearly set forth the objective of the COHSIP in the following words: "The aim of the College Humanities and Social Science Improvement Programme is to strengthen the teaching of the humanities and social sciences at undergraduate levels in the colleges and to provide ample opportunities to the undergraduate students to develop their aptitude and interest in the study of the subject of their choice."

It is clear from the above statement that COHSIP is aimed more at the teachers than at the students. We have to recognise that so long as the intellectual quality, the motivation, dedication and morale of our college teachers remains what it is, there is little hope of improving the quality of the students. In all sincerity, it must be said that the teachers are most responsible for not changing outdated syllabuses; it is they who cling to dull and uninteresting teaching and examination methods and thus render their subjects dry as dust. It is they who resist change in this and other matters for fear they may have to get out of a rut and bring themselves up to date by study and serious reading.

The second point that emerges from the UGC's statement is that the COHSIP is aimed at the undergraduate student. Obviously the U G C recognises that the first step towards improving the quality and level of postgraduate students and raising them to international standards is to produce better students at the undergraduate level. It is there that the foundations of interest in a subject are laid and the student begins to feel the urge to push further, not merely in order to get a higher degree as a passport to a job, but in order to do scholarly work and make a contribution to the human needs of the country.

COHSIP aims to stimulate the student's interest and help him discover and develop his own aptitudes. Obviously this

and the other aims of COHSIP cannot be achieved if the present practice of admitting huge numbers of students to the humanities classes continues. So long as a college looks upon the humanities and social sciences as a milch cow which has to provide finance for the science courses or as a soft option where anybody can be admitted, it will be virtually impossible to arouse student interest and develop student aptitudes.

These are some of the problems and challenges facing colleges which wish to improve the standard of teaching and learning in the humanities and social sciences. It is of the highest importance that the challenges and problems be faced in the interest of the students and for the greater welfare of the country.

CONCEPT OF BASIC EDUCATION

SHRIMAN NARAYAN

Addressing the workers of Hindustani Talimi Sangh at Sevagram sometime in 1939, Mahatma Gandhi observed : "I have given many programmes to the country during my lifetime. But I think Basic education is my best gift to the nation." It is, therefore essential for us even at this late stage to understand clearly the concept of Basic education as enunciated by Gandhiji. I am convinced that Mahatma's ideas regarding educational reconstruction on the basis of productive labour are based on sound experiences and scientific principles.

I had the privilege of convening the first Educational Conference at Wardha in October, 1937. Gandhiji had been writing a series of articles in the *Hurijan*, strongly pleading for imparting education through crafts and creative labour. In his view, "an intelligent use of the bodily organs in a child provides the best and quickest way of developing his intellect." "A proper and all-round development of the mind, therefore, can take place only when it proceeds *pari passu* with the education of the physical and spiritual faculties of the child. They constitute an individual whole." He also reiterated that the education of a child should begin by teaching it "a useful handicraft and enabling it to produce from the moment it begins its training." He claimed that "every school can be made self-supporting, the condition being that the State takes over the manufactures of these schools".

He, however, made it clear that these handicrafts should be taught not merely 'mechanically' but in a scientific manner so that the child could know "the why and the wherefore of every process." The highest development of the mind and the soul is possible under such a system of education." He declared : "The core of my suggestion is that handicrafts are to be taught, not merely for productive work, but for developing the intellect of the pupils. Surely, if the State takes charge of

the children between seven and fourteen, and trains their bodies and minds through productive labour, the public schools must be frauds and teachers idiots, if they cannot become self-supporting."

Gandhiji added : "I admit that my proposal is novel. But novelty is no crime. What experience my associates and I have encourages me to think that the plan, if worked faithfully, will succeed. The nation can lose nothing by trying the experiment even if it fails. And the gain will be immense if the experiment succeeds even partially. In no other way can primary education be made free, compulsory and effective. The present primary education is admittedly a snare and a delusion."

At that time I happened to be the General Secretary of the Shiksha Mandal at Wardha, I, therefore, suggested to Gandhiji that, on the occasion of the Silver Jubilee Celebrations of the Shiksha Mandal, an All India Educational Conference may be convened to discuss his revolutionary ideas on education. Bapu welcomed this proposal and, ultimately, agreed even to preside over the Conference held on the 22nd and 23rd October, 1937. He drew up the list of invitees himself and restricted it only to those who could make a meaningful contribution to the deliberations of the Conference. It was, however, on my suggestion that he included Dr. Zakir Husain who was, then, the Principal of Jamia Millia Islamia in Delhi. He asked me to write to Dr. Husain in Urdu, in my own hand. I did so, and a few days later Dr. Zakir Husain sent me a letter gladly accepting the invitation.

Curiously enough, Dr. Zakir Husain, while welcoming some aspects of the scheme, vehemently opposed the idea of making the schools self-sufficient by teaching arts and crafts. He said : "There is a danger in over-emphasizing the self-supporting aspect of education. Teachers may become slave drivers and exploit the labour of poor boys. If this happens, the 'takli' will prove even worse than books. We shall be laying the foundations of hidden slavery in our country."

Gandhiji utilised this criticism for explaining his concept of Basic education further for removing the cobwebs of misunderstanding. He observed : "It is said that my scheme will bring about slavery in the schools. But this can be said about all good things, because in bad hands even good things become bad. Therefore, I do not wish that my scheme should be carried out by those who have neither faith nor confidence in it."

He said : "I do not want to teach the village children only handicrafts. I want to teach through hand-work all other subjects such as history, geography, arithmetic, science, language, painting and music. All this teaching will have to be done according to a definite plan.....I am confident that if we make calculations for the seven years together we shall find that education can be self-supporting. If in the first year each boy is able to earn two pice a day, in the next year he will be able to earn an anna. In this way their power of production will continue to increase, and they will be able to earn their living in later life."

At the end of the Conference, the following resolution was passed :

- (1) That in the opinion of this Conference free and compulsory education be provided for seven years on a nationwide scale.
- (2) That the medium of instruction be the mother-tongue.
- (3) That the Conference endorses the proposal made by Mahatma Gandhi that the process of education throughout this period should centre around some form of manual and productive work, and that all the other abilities to be developed or training to be given should, as far as possible, be integrally related to the environment of the child.
- (4) That the Conference expects that this system of education will be gradually able to cover the remuneration of the teachers.

A Committee was also appointed to prepare a detailed syllabus on the lines of the above resolution. Dr. Zakir Husain was appointed the Chairman of the Committee with Shri Aryanayakam as convener. Acharya Vinoba, Acharya Kakasaheb Kalelkar, Professor J. C. Kumarappa, Shri Kishorelal Mashruwala, Professor K. G. Saiyidain, Shri Srikrishnadas Jaju, Professor K. T. Shah and Shrimati Ashadevi were the members of the Committee.

The report of the Zakir Husain Committee was submitted to Mahatma Gandhi on the 2nd December, 1937. It attracted wide attention in the country and all the Congress Governments of the time agreed to introduce this syllabus of Basic education with certain modification to suit local circumstances. Since all the Education Ministers had participated in the deliberations of the Conference, they took personal interest in introducing Basic education in their areas with enthusiasm. Training Colleges were started in various states for reorienting the teachers in the new system of work-oriented education.

Acharya Vinoba Bhave was one of the important architects of the scheme of Basic education incorporated in Zakir Husain Committee's Report. With his detailed knowledge of the art and science of spinning and weaving, he was able to lend perceptible substance to 'Nai Talim' as envisaged by Mahatma Gandhi. Vinoba made several cogent points about Basic education. In one of the speeches, he observed : "On the completion of his education, a student ought to have that kind of confidence in his own powers. This is what matters, not a supply of miscellaneous information. The purpose of education is to train men to get the information which they need for themselves. This is my definition of education : education means the attainment of self sufficiency in learning."

Gandhiji, in his subsequent writings, highlighted the importance of this new pattern of education at every stage of life. "Basic education", said Gandhiji, "extends from the moment a child is conceived to the moment of death." For example, he did not regard literacy in itself as true education.

In his view, adult or social education should be an 'education for life' and not merely the knowledge of the three R's.

Mahatma Gandhi was of the view that higher education should be made self-supporting. He desired University education also to be brought into line with Basic education :

I would revolutionize college education and relate it to national necessities. There would be degrees for mechanical and other engineers. They would be attracted to the different industries which should pay for the training of the graduates they need. Thus the Tatas would be expected to run a college for training engineers under the supervision of the State, the mill associations would run among them a college for training graduates whom they need.

It was also made abundantly clear that 'Nai Talim' was not meant for village alone. It is true that Gandhiji was urgently concerned with the provision of free and compulsory education to all children in the rural areas. He, however, did not rule out the introduction of Basic education in the cities as well. The villagers should not have a feeling that only their children are being provided with work-oriented education, while students in the urban areas are continuing with the traditional system. Unhappily, Basic education was introduced by the Congress Governments mainly in the countryside and the rural population gained an impression that an inferior type of education was being doled out to their children. This proved to be one of the main causes of the unpopularity of the Wardha Scheme. Some steps were taken in Delhi and the Punjab to establish Basic schools in the cities too. Even so, it must be frankly admitted that no serious effort was made at any time to make 'Nai Talim' universal, in both cities and villages.

It is also not necessary for each Basic School to have a farm and a workshop attached to it. In fact, all the development activities of an area should be properly linked with the educational processes in schools. The home, the village or

the city and the community should form the nucleus of a Basic School which should correlate the academic knowledge of various subjects with the physical and social environment. When the Wardha Scheme was placed before the country by Gandhiji in 1937, India was yet under an alien rule. Moreover, there was no economic planning in the country. Now that India is free and has a series of Five-Year Plans with thousands of crores of rupees invested in development activities in rural and urban areas, it should be quite possible to correlate Plan programmes with the teaching of various subjects in educational institutions. This link-up between education and development would, on the one hand, enrich the content of education and, on the other, involve the younger generation in the fascinating adventure of building up a new India.

I had convened an All India National Education Conference at Sevagram on 14, 15, 16 October 1972, to further the process of educational reform in the country. It was inaugurated by Prime Minister Indira Gandhi and attended by almost all the State Education Ministers, a number of Vice-Chancellors of different Universities, eminent educationists and several hundred Basic education teachers from all over India. After detailed discussions for three days, the Conference unanimously adopted a statement, recommending that education at all levels should be imparted through socially useful and productive activities linked with economic growth and development, in both rural and urban areas. It also suggested that "while controversy over words may be avoided, the term 'Basic education' should be preferred at the primary and secondary stages."

We do hope that the Government of India and the State Governments will now devote special attention to those proposals in order to make our educational system work-oriented at all stages. It is futile to regard Basic education as a 'fad' of the Mahatma. With the serious problems of educated unemployment and student unrest staring us in the face, the orientation of our educational system on the lines

suggested by Mahatma Gandhi has now become imperative and compelling. The well-known British educationist and thinker, Wilfred Wellock, has been strongly pleading for the introduction of Basic education all these years. "In the exercise of all man's powers in purposive social living, Gandhi discovered a unifying principle by which the human person might become a whole man, capable of building integrated families, integrated communities, and a peaceful world."

President Julius Nyerere of Tanzania is also planning for a similar pattern of education. "The pupils must remain an integral part of the family (or community) economic unit. The children must be made part of the community by having responsibilities to the community, and having the community involved in school activities. The school work-terms, times, and so on must be so arranged that the children can participate, as members of the family, in the family farms, or as junior members of the community on community farms .. The present attitudes whereby the school is regarded as something separate, and the pupils as people who do not have to contribute to the work, must be abandoned."

It is high time a firm decision is taken to revamp the existing system of education from the primary to the university stages with a sense of emergency. This has to be done not to oblige the Mahatma and please his spirit but to safeguard our own vital national interests.

THE PRINCIPLE OF LABOUR IN EDUCATION

BUDDHADEVA BHATTACHARYYA*

I

Revolution and education are interlinked. This is inevitable, as education is one of the nerve centres shaping the future citizens of the new system.

The short-lived Paris Commune of 1871 immediately set to work to dismantle the old order. In its seventy-two days of existence it instituted free, compulsory schooling for all, including free stationery; autonomy for each local commune; rational instruction based on reason, scientific experiment, and freedom from superstition; rational ethics stressing solidarity; and class struggle as opposed to the traditional type based on custom or religious dogma; social-political education aimed at revolutionary activity in contrast with non-political instruction and the enclosure of the child within the walls of the school; instruction in the arts; and an attempt to link education with industry . . . 'industrial design'. At a school opened by the Educational Committee of the Commune, a notice stated, "Courses designed to complete the scientific and literary education of students will be held together with practical courses."

All these precepts were embodied by Marx who says: "Education means to us: 1 intellectual development, 2 physical development, 3 polytechnical education, which will give knowledge relative to the general scientific principles of all production processes and will at the same time give children and youths a practice in the use of elementary tools of all branches of production."¹ The kind of polytechnical education contemplated by Marx underscores the use of 'elementary tools' and the 'general scientific principles of production process'.

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Again in the first volume of his *magnum opus*, *Capital*, Marx writes. "Paltry as the education clauses of the Act (Factory Act of 1864) appear on the whole, yet they proclaim elementary education to be an indispensable condition to the employment of children. The success of those clauses proved for the first time the possibility of combining education and gymnastics with manual labour, and consequently of combining manual labour with education and gymnastics. The factory inspectors soon found out by questioning the schoolmasters, that the factory children, although receiving only half the education of the regular day scholars, yet learnt quite as much and often more. 'This can be accounted for by the simple fact that, with only being at school for one half of the day, they are always fresh, and nearly always ready and willing to receive instruction. The system on which they work, half manual labour, and half school renders each employment a rest and a relief to the other ; consequently both are far more congenial to the child, than would be the case where he kept constantly at one.,' " Further : "From the Factory system budded, as Robert Owen has shown us in detail, the germ of the education of the future, an education that will, in the case of every child over a given age, combine productive labour with instruction and gymnastics, not only as one of the methods of adding to the efficiency of production, but as the only method of producing fully developed human beings."

These two rather long quotes do not need an apology for Marx's view on education are least known among his opponents and followers alike.

Peter Kropotkin, the revolutionary anarchist, held that the hand, head and heart of a child should be educated simultaneously, instead of merely his mind. In his famous book, *Fields, Factories and Workshops*, the celebrated Russian revolutionist advocated a change in the contemporary methods of teaching. For an all-round technical and 'integral' education Kropotkin would substitute for the division of society into brain workers and manual workers a combination of both kinds of activities,

The results would be a greater economy of human effort, a better balance of individual life, and the happiness that can be found in the full exercise and development of the different and dormant capacities of the human being.

The most far-reaching and exciting developments in education took place with the Russian revolution of October 1917. Four days after its seizure of power, the Bolshevik government formulated, in a decree by A. V. Lunacharsky, a remarkable long-term programme of educational reconstruction, evidently inspired by Lenin himself. The Bolsheviks had a vast arena in which to experiment with a new educational system. The Soviet educationists drew upon the historical experience of the Paris Commune and the 1905 Russian revolution, the educational philosophy of Marxist thinkers, and the theory and experimental practice of progressive teachers throughout the world. Books on psychology and educational method were translated from German, French and English. Prominent American educators were as well known in the Soviet Union as in America. All contributed to extensive experimentation with subject matter, teaching methods, social organization of pupils, organization of educational workers, school committees and forms of higher and adult education.

The Bolsheviks had drawn up educational programmes in 1903 and May 1917 (before the Bolshevik revolution) which pointed the direction of post-revolutionary action. Its similarity to the innovations of the Paris Commune are striking. Policy statements and decrees started pouring out within days of the revolution. These were embodied in the first systematic Education Act on 16 October 1918. It was preceded by 'Basic Principles of the Unified Labour School' which embodied the spirit and ideals of the revolution.

"The personality shall remain as the highest value in the socialist culture. This personality however can develop its inclinations in all possible luxury only in a harmonious society of equals. We (i.e. the government) do not forget the right of an individual to his own peculiar development. It is not

necessary for us to cut short a personality, to cheat it, to cast it into iron moulds, because the stability of the socialist community is based not on the uniformity of barracks, not on artificial drill, not on religious and aesthetic deceptions, but on an actual solidarity of interests."⁴ The socialist community was a 'single factory' in which the exploitation of man by man was replaced by the exploitation of our planet by the united humanity. The school therefore had the aim of educating this future 'master of nature'. "The aim of the Labour School is not a drill for some or other craft, but to impart a 'Polytechnic' education, giving to children the knowledge of the methods of work."⁵ A conference of revolutionary teachers (a small minority of Russian teachers) held in June 1918, amplified the important aspect of the polytechnic education, and reiterated the development of the personality.

"The main aim of the new school should be bringing up of a creative personality developed on many sides. The conference considers it necessary to give to education a polytechnic direction and transform the school into a working commune, based on self-activity, on productive labour for common use and adapted to local conditions. The school should not be opposed to life, but coinciding with it, should endeavour to create a harmoniously developed human being."⁶

Polytechnical education is the form best suited to a society which aims to eliminate the division between mental and manual labour, and where the dignity of labour is upheld and the precept 'He who does not work, shall not eat' adhered to. It is therefore the form of education suited to a workers' state and to Socialism.

Polytechnical education of the polydexterous socialist man will, of necessity, have to be based on both manual and mental training and work, and because it would incorporate within itself all the basic elements of modern scientific knowledge as well as production processes, it would create a man familiar with, and at home in, various productive and social positions. So both process and product of education are directed towards

creating the socialist man and finally the classless communist society.

To Lenin, polytechnisation was not merely educational. It was a general political question. "It was the question of the radical reconstruction of the whole tenor of life, a question of eradication of the whole division of labour, intellectual and manual."⁷

What exactly did Lenin mean by polytechnisation of education? Beatrice King in her *Soviet Education* explains: "Polytechnisation is both a system and a method. As a system it acts as the correlating agent between education and life. As a method it prepares children to be skilful and understanding workers of the community."⁸

Narrow technical training should not be misconstrued as polytechnisation. Polytechnical education links up productive labour with scientific education.

The Soviet system of education gives prominent place to productive labour. In order to appreciate fully the novelty of the Soviet experiment one must take into account the tremendous social and political role of labour. Labour under a workers' state does not mean labour process nor self-service nor school workshop, but the central axis of the entire school.

Lenin said that "we could not believe in teaching, training and education if they were restricted only to the school room and divorced from the ferment of life"⁹ His plea was for a unified and integrated education for the re-making of man.

The Chinese communists have also adopted the principle of combining productive labour with theoretical instruction. In 1958—the year of the 'Great Leap Forward'—the structure of China's educational complex was radically transformed. In that year of experimentation and innovation, the leadership made two major, complementary decisions: education would be combined with productive labour, and educational facilities would be widely expanded. Students in full-time schools were sent into the factories and out to the fields as an integral part

of the curriculum. 'Half-work, half-study' agricultural middle schools spread through the collectives and communes. Due to a variety of agricultural problems and national disasters, the system under which these half-time institutions operated was modified after 1961. The part-time (usually half-time) institutions originally offered a three years' education course on a half-day basis ; one half of the day was spent in productive labour while the other was devoted to a related junior high school type curriculum. The current trend has been for them to offer a split-year programme with a three-month winter, full-time, formal school programme, followed by a spring-to-autumn programme in the field and augmented with various practical studies on a modified basis.¹⁰ In this connexion, the findings of the National Conference on Part-Work, Part-Study Education, held in Peking in late 1965, are significant : "The part-work, part-study schools have shown their superiority in promoting the integration of education with productive labour, in bringing up workers who can labour with their hands and who are both socialist-minded and cultured, and in gradually diminishing the differences between mental and physical labour."¹¹ And again : "The part-work, part-study educational system had enabled education to be closely integrated with productive labour, making full use of the two kinds of classroom (that in the school and that at the place of work) and two kinds of teacher (the school-teacher and the worker-tutor) thus facilitating the all-round moral, intellectual and physical development of the students."¹²

The 'educational revolution' in China up to 1965 insisting on half-study half-work was soon seen to be inadequate until the very ideological base of domination of the old elite through its greater facility with the old culture was neutralized. The Cultural Revolution was a direct outcome of this new attitude. And "An important theme in the Cultural Revolution was the emphasis on practice in education . . . "¹³

Whatever may be our attitude towards the People's Republic of China it cannot be gainsaid that this country registered remarkable advance in the field of education. It would be

purblindness on our part if we allow our political prejudices to cloud our judgement and fail to recognize the potent fact. One would possibly agree with Edgar Snow when he says : "The principle of respect for toil and for combining book knowledge with related practical work was sound and necessary in China. If it did nothing but prevent the return of a small elite literati with notions that manual labour is beneath it, the effort would be worthwhile."¹⁴

Antonio Gramsci,* the most important Marxist thinker to emerge in a Western European country in this century, made certain observations which are of enormous significance in order to understand the Marxist position on education. It has been rightly suggested that he was far from being hostile to the Rousseausque tradition in education, though he was critical of it.¹⁵ The Italian Marxist repeatedly emphasized on learning as work. While making criticisms of the Gentile Reform¹⁶ he pleaded for "a common basic education, imparting a general, humanistic, formative culture" which "would strike the right balance between development of the capacity for working manually (technically, industrially) and development of the capacities required for intellectual work."¹⁷ And again "The advent of the common school means the beginning of new relations between intellectual and industrial work, not only in the school but in the whole of social life."¹⁸ Though written in the specific context of Italy of his time, Gramsci's views correctly reflect the essential Marxist position on education.

The principle of work-oriented education has been recognized by 'progressive' educationists in capitalist countries, who aim towards a rounded integrated personality, and there are a number of islands of experiments along these lines.

*Antonio Gramsci (1890-1937), son of a poor Sardinian family, became the leader and theorist of the PCI (Italian Communist Party) in his early thirties. Arrested by Mussolini's police in 1927, he was imprisoned in a fascist jail until his death.

The Dalton Plan and Dewey's 'Project' method¹⁹ are two well-known American experiments now some decades old. There are elements of the system in Britain's education.

II

The Zakir Hussain Committee in its report to Gandhiji correctly stated: "Modern educational thought is practically unanimous in commending the idea of educating children through some suitable form of productive work. This method is considered to be the most effective approach to the problem providing an integral all-sided education.

"Psychologically, it is desirable, because it relieves the child from the tyranny of a purely academic and theoretical instruction against which its active nature is always making a healthy protest. It balances the intellectual and practical elements of experience, and may be made an instrument of educating the body and mind in co-ordination. The child acquires not the superficial literacy which implies, often without warrant, a capacity to read the printed page, but the far more important capacity of using the hand and intelligence for some constructive purpose. This, if we may be permitted to use the expression, is the literacy of the whole personality.

"Socially considered, the introduction of such practical productive work in education, to be participated in by all the children of the nation, will tend to break down the existing barriers of prejudice between manual and intellectual workers, harmful, alike for both. It will also cultivate in the only possible way a true sense of the dignity of labour and of human solidarity - an ethical and moral gain of incalculable significance.

"Economically considered, the scheme if carried out intelligently and efficiently, will increase the productive capacity of our workers and will also enable them to utilise their leisure advantageously.

"From the strictly educational point of view, greater concreteness and reality can be given to the knowledge acqui-

red by children by making some significant craft the basis of education. Knowledge will thus become related to life, and its various aspects will be correlated with one another."²⁰

So far Gandhiji was concerned education through manual work or a craft, was an original idea. "That he should have come by it independently of former workers and thinkers in the field shows how near he lives to the earth. However in the history of education, the idea is neither new nor revolutionary. The idea has been advocated often enough and notable efforts have been made in the past to work it out."²¹

True that what Gandhiji advocated was not, in its essence, an entirely new educational doctrine. But then where does lie the special significance of Gandhiji's contribution? The special significance of Gandhiji's contribution lies, firstly, in the fact that it was he who had made it and, secondly, in that no one in India had stressed the principle so emphatically and unambiguously before, or sought to make it basic to the entire educational process. The 'academic' tradition in education had persisted in India for centuries with the result that culture had become divorced from work, and manual labour was regarded as positively dishonourable. Gandhiji, 'an enlightened radical liberal' in the words of Gunnar Myrdal,²² struck at the citadel of this prejudice—others had been doing so but not, perhaps, so effectively—and stipulated that every child whether rich or poor, high-born, or low-born, should whole-heartedly participate in actual manual work. Productive work, according to Gandhiji's scheme, becomes not only a dominant part of the curriculum; its spirit begins to inspire the methods of teaching also.²³

In Gandhiji's view education should aim at developing "the whole man through craft."²⁴ He was perhaps the first educationist to preach and practise on such a large scale the idea that "handicrafts are to be taught, not merely for productive work, but for developing the intellect of the pupils,"²⁵ and he wanted "to teach through hand-work all the subjects like history, geography, arithmetic, science, language, painting

and music."²⁶ It was an article of faith with Gandhiji that education must revolve round vocational and manual activity as the centre, and syllabi should be woven round manual training. "This does not mean," says Mahadev Desai, "supplementing literary with manual training, but making manual training the means of literary and intellectual training."²⁷

Explaining his plan to a teacher who had combined manual training with literary training in a school for a number of years, Gandhiji said: "I am afraid, you have not sufficiently grasped the principle that spinning, carding, etc. should be the means of intellectual training. What is being done there is that it is a supplementary course to the intellectual course. I want you to appreciate the difference between the two. A carpenter teaches me carpentry. I shall learn it mechanically from him, and as a result I shall know the use of various tools; but that will hardly develop my intellect. But if the same thing is taught to me by one who has taken a scientific training in carpentry, he will stimulate my interest too. Not only shall I then have become an expert carpenter but also an engineer. For, the expert will have taught me mathematics, also told me the differences between various kinds of timber, the place where they come from, giving me thus a knowledge of geography and also a little knowledge of agriculture. He will also have taught me to draw models of my tools and given me thus a knowledge of agriculture. He will also have taught me to draw models of my tools and given me a knowledge of elementary geometry and arithmetic. It is likely that you do not correlate manual work with intellectual training which is given exclusively through reading and writing. I must confess that all I have up to now said is that manual training must be given side by side with intellectual training, and that it should have a principal place in national education. But now I say that the principal means of stimulating the intellect should be manual training."²⁸

Gandhiji's system of Basic Education was built round some useful craft. As has been aptly put by Prof. Nirmal Kumar

Bose : "It was not to be education *plus* Craft, but Education *through* Craft."²⁹

The difference between Gandhiji and his precursors and modern pedagogues in the realm of education is that, whereas the latter recognized the need of an activity or manual work as an indispensable accompaniment of the educational process Gandhiji laid down that "the whole of general education should come through the craft."³⁰ This is perhaps his distinctive contribution to the philosophy of education. It should be noted that the crafts Gandhiji had in his view should be village industries like spinning, weaving, carpentry, etc. because India was (and still is) primarily an agricultural country. There is no room for centralized industries in Gandhian economics and hence in his educational philosophy.

The basic idea of Gandhi's scheme was that if the craft chosen was taught efficiently and thoroughly, it should enable the school to pay towards the cost of its teaching staff. According to him that would also help the State to introduce immediately the scheme of free and compulsory basic education. Failing that, he thought, that the then existing political and financial condition of the country would make the cost of education rather prohibitive. Hence he introduced the self-supporting aspect in his scheme.

Gandhi believed that the handicraft taught should not only develop the personality of the child but also make education self-supporting. He wanted that the products turned out by the children should have economic value. Since the products of the children were to be taken over by the State, according to him the problem of how to dispose of the products does not arise.

The self-supporting aspect of the scheme may be interpreted in two ways, namely, education that will help one to be self-supporting in later life, and education which in itself is self-supporting. There is in fact no harm in giving children an education which will enable them in later life to be self-supporting. In these days of acute unemployment, the

immense advantages of such a scheme can be realized by all. Gandhi's idea behind such a scheme might have been that an education of that kind ought to be for them a kind of insurance against unemployment.

He conceived of education being in itself self-supporting in connexion with meeting the expenses of teachers' salaries through the manual and productive work of the children. He approached the problem with the confidence that every school could be made self-supporting, provided the State should take over the manufactures of these schools. If the State were to take over products, naturally, the qualitative excellence of these products must be maintained and guaranteed. That was why Gandhi was particular that the craft chosen must be taught efficiently and thoroughly and also learnt by the children, not mechanically but systematically and scientifically with a view to efficiency and practical results. It was to be both a means and an end. Simply because he introduced the self-supporting aspect in his scheme, it is not to be inferred that he wanted to ensure economic independence of either the pupil or the school by means of a craft learnt mechanically. His aim was to accord dignity of labour and ensure modest and honest livelihood for the students after leaving school.

Even though self-support would be the acid-test of its reality, Gandhi was not fanatic about it. Speaking about education through a craft he says : "If such education is given, the direct result will be self-supporting. But the test of success is not its self-supporting character but that the whole man has been drawn out through the teaching of the handicraft and in a scientific manner. In fact I would reject a teacher who would promise to make it self-supporting under any circumstances. The self-supporting part will be the logical corollary of the fact that the pupil has learnt the use of every one of his faculties. If a boy who works at a handicraft for three hours a day will surely earn his keep, how much more a boy who adds to the work a development of his mind and soul?"³¹

The self-supporting aspect of Basic Education raised a great controversy in the world of education. Since many experts have discussed in detail the many-sided implications of the Gandhian scheme of education as well as about the self-supporting aspect of craft-centred education we need not dilate on those points. We would rather like to focus on a point which we deem it to be central in Gandhiji's scheme of education. And secondly, we shall try to find out the distinctiveness, if there be any, in Gandhiji's scheme in so far as the principle of labour is concerned.

Gandhiji perceived that the first step to be taken in awakening the semi-paralysed nation was to propound a philosophy of life upholding the dignity of labour. This he did constantly from the beginning of his public career. He proposed labour franchise for Congress membership. Since spinning as one of the crafts that could be learned easily by all and fulfilled one of the necessities of human life, it became to him the symbol of manual labour. As is well known, he included *Sarira Srama* as an obligatory vow for the Ashramites. Bread labour, in short, was both philosophy and economics to Gandhi. He extended this principle in the field of education in the form of work-centred education. Apart from the purely educational aspect of this question, one must recognize that the concept of bread labour in a hierarchical, authoritarian, and closed society decidedly carried a progressive significance in that it cut at the roots of social distance institutionalized through the age-old caste system.³²

Now, about the distinctiveness of Gandhiji's contribution to modern educational thought. Gunnar Myrdal in his *Asian Drama* observes: "In his propaganda for basic education Gandhi showed a surprisingly modern way of thinking . . . he was in line with modern theories of 'learning through doing' that were developed by John Dewey and other educators in the United States."³³

Dewey sums up his idea of educational reform by enunciating the following three principles:

"First, never before was it as important as it is now that each individual should be capable of self-respecting, self-supporting, intelligent work that each should make a living for himself and those dependent upon his efforts, and should make it with an intelligent recognition of what he is doing and an intelligent interest in doing his work well.

"Secondly, never before did the work of one individual affect the welfare of others on such a wide scale as at present.

"In the third place, industrial methods and processes depend today upon knowledge of facts and laws of natural and social science in a much greater degree than ever before. Our railways and steam-boats, factories and farms, even our ordinary household appliances, depend for their existence upon intricate mathematical, physical, chemical and biological insight. They depend for their best ultimate use upon an understanding of the facts and relationships of social life. Unless the mass of workers are to be blind cogs and pinions in the apparatus they employ, they must have some understanding of the physical and social facts behind and ahead of the material appliances with which they are dealing."

Again he says "We must use all work in wood and metal, in weaving, sewing and cooking as methods of living and learning, not as distinct studies. We must conceive of them in their social significance as types of the process by which society keeps itself going, as agencies for bringing home to the child some of the primal necessities of community life and as ways in which these needs have been met by the growing insight and ingenuity of man; in short his instrumentality through which the school itself shall be made a genuine form of active community life instead of a place set apart in which to learn lessons."³⁴ Gandhiji also envisages "the idea of a co-operative community in which the motive of social service will dominate all the activities of children during the plastic years of childhood and youth"³⁵ In such a school community children receive intellectual training through basic crafts which bring home to them the primal necessities of community

life. Both Dewey and Gandhiji conceive of education not merely in terms of learning, but in terms of construction, use of tools, contact with nature, expression and activity. To them school is the place where children are working rather than listening to dry and drab lectures, learning life by living life. The virtues of such a school are learning by doing, the use of muscles, sight, and feeling, as well as hearing; and the employment of energy, originality and initiative. Both Dewey and Gandhiji agree so far, but the distinctive feature of the Gandhian scheme consists in the fact that Gandhiji does not mean to supplement literary with manual training, but makes manual work the means of literary and intellectual training. Another difference is that the orientation of Gandhiji's scheme was rural.³⁶

Acharya Kripalani is of the opinion that "As a matter of fact the Soviet system of education marks the nearest approach to Gandhiji's ideas."³⁷ It may be submitted here that the original scheme of polytechnical education was largely modified during the thirties. We need not concern ourselves here to analyse the reasons of this shift or modification in Soviet educational policy. But the fact remains that though "training in essential labour habits and polytechnic education are an integral part of the general education system in the Soviet Union"³⁸ the knowledge of all subjects is not imparted through manual work as Gandhiji did.

The Project Method preached by Kilpatrick and other followers of Dewey in America and the Complex Method (rejected since 1937) make some manual work the centre of education, but the Wardha Scheme is based on a different ideology altogether.

We have already seen (Sec. I) that education in China today is being combined with productive labour in fields and factories in order to develop the students physically, morally and intellectually. We have also noted that the current trend has been for the half-time institutions in China to offer a split-year programme. In the Basic system, on the other hand,

the process of education and work runs simultaneously through correlated teaching. But there is one important similarity between the Gandhian scheme and the Chinese policy. That relates to the self-supporting aspect. Gandhiji insists on the self-supporting aspect of education. And in China, Snow observes, "The aim everywhere was to make half-work half-study schools wholly self-supporting."⁴⁰

Grasmsci who made a plea for 'the beginning of new relations between intellectual and industrial work' was of the opinion that "The Common School necessitates the State's being able to take on the expenditure which at present falls on the family for the maintenance of children at school .."⁴¹ The difference in attitude is obvious.

The synoptic discussion that I have made in the preceding paragraphs will, I hope, bring to focus the distinctiveness of Gandhiji's scheme.

III

Many years have passed by since Gandhiji originally designed his system of Basic Education. It has been taken over by the Government. In the changed political context, it has been considerably modified from the original Gandhian plan.⁴² But the need to provide some corrective to the over-academic nature of formal education has been widely recognized. In the curricula of most contemporary school systems, particularly in the socialist countries of Europe, a place is found for what is variously, called 'manual work' or 'work-experience'.⁴³ The Education Commission (1964-66) in its *Report* suggests that the concept of work-experience is essentially similar to that of Basic Education. "It may be described as a redefinition of his educational thinking in terms of a society on the road to industrialization."⁴⁴

The Education Commission is of the opinion that "the concept of work-experience is closely related to the philosophy underlying basic education. The programme of basic education did involve work-experience for all children in the primary

schools, though the activities proposed were concerned with the indigeneous crafts and the village employment patterns... what is now needed is a reorientation of the basic education programme to the needs of a society that has to be transformed with the help of science and technology. In other words, work-experience must be forward-looking in keeping with the character of the new social order."⁴⁵

Work-experience, it has been claimed, 'can help to make the distinction between intellectual and manual work less marked (not obliterated-B.B.) as also the social stratification based on it.'⁴⁶ This has very close resemblance to the report of the Zakir Hussain Committee quoted above. And again : 'This would meet, to some extent, the expenditure which the students have to incur on their education or on their maintenance while at study. The amount of this earning will naturally increase as the students go up the education ladder and it becomes possible to organize work-experience in a manner that would enable them to 'earn and learn'.⁴⁷ This also, though in a modified form, is in keeping with the self-supporting aspect of Gandhiji's scheme.

The recommendations of the Education Commission are commendable indeed. And work-experience, if implemented vigorously at all levels, will certainly go a long way in the direction of reconstruction of education in our country.

It is hoped in the *Report*, one comes across the same optimistic note in the report of the Zakir Hussain Committee as well, that the introduction of practical productive work will 'tend to break down the existing barriers of prejudice between intellectual workers' or that it would 'help to make the distinction between intellectual and manual workers less marked,' My question is : Will it really ? The dissociation of manual labour from intellectual labour is a product of class society. And that the antithesis between mental and physical labour, a corollary of the enslaving subordination of the individual to the division of labour, would 'vanish' only in a higher phase of communist society where labour becomes not only

a means of life but life's prime want.⁴⁹ True the ultimate goal of Gandhiji's political philosophy was a classless, exploitation-free society, a *Sama Sama*j but he did not approach the problem of the dissociation of manual labour from intellectual labour from the socio-historical point of view. He would have replied that one need not wait for the distant future, but start from the immediate present. This betrays his empiric approach⁴⁹ which is reflected in his analyses of institutional, social and economic questions, as also in his attempts to find out a solution by identical means.⁵⁰

References and Notes

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4. Cited in Chanie Rosenberg, 'Education and Revolution,' in *International Socialism*, London, 49,
5. *ibid.*
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12. { op. cit. p 237.
13. Joan Robinson, 'Chinese Economic Policy' in Joseph Needham, Joan Robinson *et al*, *Hand and Brain in China and other Essays*, Anglo-Chinese Educational Institute, London,
14. Edgar Snow, *Red China Today : The Other Side of the River*, Penguin Books, London,
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16. In 1923 the Mussolini government put through the first major reform of Italian education since the unification of the country sixty years earlier and the adoption of the Piedmontese educational system, as laid down by the Casati Act of 1859. The reform was drafted by, and named after the idealist philosopher Giovanni Gentile, who was Mussolini's Minister of Education; but its main lines had in fact been worked out by Croce, who had held the same post in the Giolitti Government of 1921. In the first decades of this century, Gentile and Croce had developed a wide-ranging critique of the existing school system, stigmatising it as "instruction" not "education", and as narrow, formal and sterile. The watchwords of the Gentile reform were "educativity" and "active education", and Gramsci's object in his writing on education was in part to expose the rhetorical character of these slogans.
17. *Selections from the Prison Note Books of Antonio Gramsci*, op. cit., p. 27.
18. *ibid.*, p. 33.
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33. Gunnar Myrdal, *Asian Drama : An Inquiry into the Poverty of Nations*, Penguin Books, London.
34. Cited in Kripalani, op. cit., p. 34.
35. *Educational Reconstruction*, op. cit., p. 124.
36. *ibid.*, p. 73.
37. Kripalani, op. cit., p. 38.
38. Chanie Rosenberg observes : "Polytechnical education (in all but name) was thrown overboard" —'Education and Revolution,' op. cit., p. 28. The author holds that the rise of bureaucracy inside the Soviet Union was mainly responsible for this.

S. Shukla says : "In the early phase, we see Krupskaya proposing child and complex-based pedagogy which at once minimized the role of the hitherto bourgeois teachers and took the child close to work. There was also a tendency to relate Marxist ideas of polytechnism with the pragmatist pedagogy of Dewey in the United States. Soon, however, in the phase of socialist construction of industry in the thirties, the need for stronger labour discipline made it necessary to restore a teacher-based discipline in the school. This was also consistent with the working class bias of the socialist state, as by now a cadre of teachers of working class origin and/or educated during the Soviet era had emerged. It was also felt that the complex-based pedagogy, centred on locally available activities, may not be the most appropriate for an industrializing society. The technology of the industry, and the scientific knowledge needed for the latter were far in advance of the locally activities (similar has been the feeling regarding Basic Education in India.) Consequently, the stress on formal teaching of science, mathematics and languages grew sharply. To promote the skills of the hand and the eye, and of group work, which had been the strong points of the complex-method (as much as of Basic education or of Dewey), the extra-curricular Pioneer and Komsomol organizations were considered not only adequate but more suitable, for these could respond quickly to the changing social and political requirements of the new society in a

measure that schools and teachers could not—and perhaps need not.” —‘Educational Elements in Cultural Policy—A Socialist Perspective,’ in Satish Saberwal (ed.), *Towards a Cultural Policy*, Vikas Publishing House, New Delhi, 1975, p. 232.

39. *Education in the USSR*. op. cit., p. 34.
40. Edgar Snow, op. cit., p. 458.
41. *Prison Note Books*. op. cit., pp. 29-30.
42. See Gunnar Myrdal, op. cit., pp. 1738-9.
43. “Work-experience is...a method of integrating education with work. This is not only possible but essential in modern societies which adopt science-based technology. In all traditional societies, an antithesis between education and work is usually postulated, partly because the techniques of production are primitive and do not necessarily require formal education, special skills or high intellectual ability, and partly because the work is generally manual, low-paid, akin to drudgery and confined mostly to the uneducated ‘lower’ classes. As against this, education is generally the privilege of the upper classes who are interested, not in working for a living, but in the cultivation of interests which may help them in the enjoyment of life. The educated elite thus become largely parasitical in character and the real productive workers—at a low level of efficiency, generally—are the unlettered peasants and artisans. The complex techniques of production (including those in agriculture) adopted in modern societies, on the other hand, require higher forms of general or technical education and a comparatively higher level of intellectual ability. High talent is required for research in technology, and even at the lower levels of work, brains become more important than physical strength. The traditional resistance of educated persons to engage themselves in productive work tends to disappear because with the adoption of the new technology, work in industry or on the farm becomes more productive and remunerative and ceases to be looked down upon socially. The educated person thus becomes an important source of production and the uneducated person, an unproductive burden on society. This process, which has already started in our country, needs to be accelerated and therefore the inclusion of work-experience as an integral part of all education acquires an urgent significance.” *Education and National Development : Report of the Education Commission 1964-66*, NCERT, New Delhi, 1971, 1.27, p.14.
44. *ibid.*, 1.28, p.14.

45. *ibid.*, 8.75, p. 351.
46. *ibid.*, 1.29, p. 15.
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48. Karl Marx, *Critique of the Gotha Programme*, Foreign Languages Publishing House, Moscow, 1947, pp. 26-7.
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EDUCATION FOR A NON-VIOLENT SOCIETY

PROF. SUGATA DASGUPTA

System maintenance has been the main function of education. It is true that this important social institution has many publicly listed purposes. But its foremost concern has been the perpetuation of a Society and the reinforcement of its structure and role. To the extent such a society has been concerned with the preservation of peace and with the development of the general well being of all its members, education has naturally contributed to the process.

Even a most 'non' doctrinaire approach to the understanding of society would however reveal that the latter's primary function has been different. Its priorities were neither the 'people' nor their 'welfare'. That has, on the other hand till now been the creation of an elite ruling class and a pyramidal structure of relationship among its members. Naturally peace for a few and the perpetuation of a continuous state of 'peacelessness' for others have been the society's main concern. Despite the fact that human civilisation has passed through multifarious stages of evolution, this central ethos has remained unchanged. Bureaucracy, industry; meritocracy, modern science, managerial system, army and all ennobling ideals like democracy, nationalism, peace, socialism and planned development have all contributed to the process.

Education, which helps people to accept this system, thus in effect also helps the relentless perpetuation of an oppressive social set up, one that militates against the development of the individual. Exploitation of the masses, the dominance of a minority over the great many as also the concentration of power and profit in a few hands provide its essence. It is not necessary to subscribe to any formal 'ism to understand this basic exploitative character of the society. Gandhi calls this scheme of exploitation as 'violence' and finds that the society, both in history as well as in the contemporary period, has

always been violent. 'Domination' is its central theme and exploitation, of men by men, of women by men, of the weak by the strong, of age and sex groups by each others, of men by systems and of the systems by men its main ethos. If the society thus represents a linear mode of satisfaction, education more than wealth provides its main lever. In the ancient society as well as in the modern, in the developing countries as well as in the developed, education has thus always served the interests of an exploitative social class.

II

The roots of such a society can be found every where. Histories of all cultures and continents of the world in fact provide the testimony that systemic violence is not of recent origin but has existed all through the ages. Yet no where has it probably been so evident, so early in the day, as in India in the evolution of an extremely well developed and sophisticated elite framework. The establishment of a Brahminical order in India provides the beginning in recorded history of that early exploitative society of pyramidal shape.³ An Italian traveller reporting his experiences in an Indian village, a few thousand years ago provides the proof. He writes that he had met a Brahmin 'Pandit' in an Indian village. "What is a Solar Eclipse" the traveller had asked the Pandit. The Brahmin gave him a scientific explanation, one that the traveller has recorded and still remains valid and authentic as of this day. But some thing interesting happened thereafter. A lay man, a worker, a black untouchable, came to the Pandit and put him the very same question "Pray, tell me what is a Solar Eclipse", The reply was ready, "A demon called Rahu" said the Pandit "Eats up the Sun God". As the man contented with the answer left, the bewildered traveller enquired of the Brahmin, which of the two theories, he propounded, was true and why had he had a different theory for each one of them. The Pandit replied without any hesitation. "The one that I have given you is the real explanation; the other is not.

Knowledge is not for all and that is why a different theory for the common man".

In ancient India, if a woman or an untouchable had dared to read the "Vedas"⁴ the punishment was severe. It was to 'pour' melted metals in their ears. Only a few, the Brahmin by caste, were to hold the key to knowledge. None others were entitled to it. For knowledge was power and so was the knowledgeable, the Brahmin, who was to even control the king and the state. If the rationale of the society, in ancient India, was thus provided by the Brahminic mould, the same holds good even today all over the world.

Education in the Third World is thus used not only as an exercise in pyramid climbing but for raising in fact the class 'stature' of all those who belong to the lower rungs. They take to education in search of prestigious jobs and for entry emerging 'elite' subsystems comprising the upper 'class caste' strata of the respective countries.⁵ The school has, thus, at once been a ladder for social mobility as for social disintegration. All in all, education has been a disquieting experience leading often to the creation of a 'neo-colonial' class of decision makers in the third world. They succeeded thanks to education, politics and money thus to step into the positions of the former rulers⁶ who were however forced to give up their colonies for the reasons that are repeated again.

Not that these facts are not known. But their full implications are often forgotten. This is due to a growing feeling that the results of education that we have listed above are really the products of under development and not so much of the system of education. The contention is that the disabilities will disappear in course of time as the standards of living of the third world rises. How fallacious the assumption is would be clear to all those who may care to look at the countries and regions where development is taking place in rapid strides. It has, in fact, been the finding of the 'development decade' that the gains of growth have, all over the third world, been eaten up by a few, and that the two reasons for this

great human catastrophe are provided by the type of technology and the pattern of education has thus been no more glorious in developing societies than in the poor countries.

It is a well known fact that those nations live in two cultures one of the developed elite and the other of the so-called underdeveloped masses. One is educated in the formal sense of the term and the other is not. There is consequently often very little of communication between the two and very little of community of interests. The developing nations are in fact facing serious internal crisis today as the two groups stand poised for a bitter show down. Education has indeed been dysfunctional to development, dysfunctional to the growth of an equitable society and dysfunctional to the emergence of a peaceful order.

III

If this is the situation in the developing countries it will be wrong to think that the developed societies do not resemble a similar pattern. In Great Britain, for example, education still helps to tilt the balance in favour of an elite society. Only 16% of its people go for higher education, and out of these 80% come from the nonworking classes.⁷ Universal literacy was similarly introduced in Great Britain to serve the interests of the rich elite. It came first in the factory where the worker was to be made literate in order to ensure that the writ of the management could reach all the workers quickly through wall posters and notices. Universal literacy, unlike universal suffrage, thus came to Britain primarily for stepping up production and not so much for the purpose of enlightenment. The main function of education, even in that early day, was thus to help serve the interests of the capitalist producer that owned the industry (Even now one per cent of people in Great Britain control 45% of capital). Naturally the plans for universal education, of which literacy provides the base, was never taken up seriously in the U. K. Although 98% of people in Great Britain are thus formally declared as literate 80% of them can only read banner head lines.

The British society, consequently, still comprises several classes of people who are the products of different school systems e.g. public Schools, Grammar Schools, Comprehensive Schools, etc. Since 77% of people in Great Britain give up education at the age of 18 the handful of those who go to the Universities certainly form a separate coterie. They occupy prestigious positions, wield power as decision makers and determine the destiny of the masses, not so well educated or knowledgeable. As with developing societies, so with the developed it is the handful of the educated that wield the real power everywhere. I will explain what I mean.

There was a time when the feudal lords and the army hand ruled all lands. Then with the rise of capitalism it was the businessmen who had come to occupy positions of real power. Gradually the emphases change and as the technological society rises from the ashes of its predecessor new power groups come to the forefront. A technological society requires an army of trained manpower and specialists of various types to run it smooth. The people who have had the benefit not only of higher education but also of specialised knowledge and skills then became all powerful. A Kissinger is thus important in the White House, not only because he is an intellectual himself but because he can influence a large number of others in favour of State action. Many of the 3500⁸ full professors, in Italy, acclaimed as 'barons of the lecture halls' still control the Italian Parliament in their respective fields of interest. It is the Intellectual elite at New Delhi especially the economists of a particular 'school' that together with the professional politician hold the real key to power in India. Prime Ministers in all countries have thus increasingly to depend on the intellectuals of their choice in matters of policy making and government. Since specialised knowledge is so crucial today - it is the knowledgeable and especially all those who are coopted in administration that wield the real power in the world.

Monopoly of knowledge—a monopoly that apparently seems so harmless is thus as dangerous as the much decried monopoly of wealth and rank. What is worse is that a small coterie of people, who hold this monopoly, know it will that they own all their power to the specialised knowledge they claim to possess. Accordingly one makes every effort to preserve the prerogative. As programmes of mass-education develop, especially in welfare states and communist countries and the special status of the 'knowledge' monopolists seem to be threatened, the efforts for self-preservation become all the more pathetic. This is revealed by the development of extreme forms of specialization in every branch of knowledge, be it social sciences, literature or painting. The purpose is to make all exposition unintelligible and the common man the 'Sudra' of the day. Development of ridiculous jargons by twists of languages otherwise simple provides the device for it. Poems, short stories and paintings also similarly assume forms and structures that become more and more abstract. This obscurantist development of knowledge is a conscious attempt to retain a monopoly that helps perpetuation of inequality, and violence in the social structure.

Simultaneously the practice spreads 'uneducation'. For all those who are well educated by all known standards but have no specialised knowledge of any discipline are now declared as 'uneducated'. Naturally the new 'uneducated', ignorant of the complexities of the specialised branches of knowledge, are not to be trusted with any decision-making role in production, politics and society. They have therefore only to conform to the 'rulings' of the coterie. Norms, mores, rules, ways of social living all are thus tailored by the leaders of the society who keep their "mantras" and the "formulae" as hidden preserves. While this happens on one hand, the new mode of education—or rather the development of extreme forms of specialisation, naturally keep its recipients confined to grooves. The narrow limits of their knowledge leads to a

blunting of the natural intelligence. It damages intuitive capacities and curbs rational faculties. Education is therefore twice destructive. It destroys those whom it is denied, it destroys those whom it reaches

V

The dysfunctionality of such a system is clear today. It has indeed led to considerable rethinking about education and to many conscious efforts for its reorientation. One of these has been a call for linking education to employment. The concept keeps a two fold function of education in view. First of all such a view of "education" declares all those who are "uneducated" as unemployable ("Vide the recent call of the sweepers' and Scavengers' Union of New York Municipality not to allow any person to be recruited as a sweeper unless he possesses a school leaving certificate and the decision of the Tagore University, (Santiniketan) taken sometime back not to allow any one to take a course in painting unless he has a similar certificate), and consequently creates a vast number of unemployed. The other prescribes that the educated must have the first claim on employment, that is, a preference over all those who do not belong to the "caste" of the "Educated". But such a philosophy is self defeating and the point of destruction reaches when the rank of all those who seek education swells and education, because of the huge explosion, fails to offer employment even to those who are "educated".

This formulae of linking education to employment and its natural failure to produce results have led to serious violence in the campus. The increasing volume of educational explosion has however made it evident that education can no longer be the sole criteria for employment. It is also clear that provision for employment of all those who are not educated or are half-educated, in the technical sense of the term, will have to receive as much priority.

The students, the clients of education, have thus, due to its lamentable failure, become totally disillusioned with the system itself. Agitating for a thorough change in the scheme of things which vests all control and 'power' only in a few and doles out some 'jobs' to others, the students of the West are now on war path. In the third world, as in India for example, the students who go for higher education, have likewise reacted adversely to the system. Discovering that education can no longer offer security they seem to have decided to ignore it all together. Their chief concern now is for political power which alone, they think can provide recognition and affluence to them and strengthen their position in the elite framework. All in all, the system that education maintains, the consequences that it leads to spills much blood and leads to much violence. Such an endeavour can verily be called the 'education for violence'—using the term-violence both in its literal sense as also in the manner in which Gandhi had used it.

As the aspirations of the masses develop through extension of universal education, as the coterie of the knowledgeable close their ranks, as the rising levels of general education delinks itself from employment, as the class barriers between the 'educated-privileged' and the 'under-educated underprivileged' increase, the situation is bound to become worse confounded. Marx had opined that the final struggle for liberation will be a fight between the economic classes. It is easy, however, to perceive that in the changed situation the real struggle in India, if not in the third world as a whole, is going to be between the 'educated employed' unproductive people on one hand and the vast number of the self employed productive 'small' producer on the other. The recent innovations in the name of Socialism namely nationalization and development of state capitalism are nothing but endeavours in the same direction. They are the devices to ensure that the educated, unproductive, employed intellectual control all the capital that finances production and generates employment. If these

efforts succeed the results will be disastrous. For that will not only increase the quantum of systemic violence but may well lead to a breakdown of the structure.

If education has thus been a product of an elitist mode of society and has led in turn to further elitism, inequity and violence only drastic remedies could help the situation. What shall we do then ? Start again from the beginning or go forward to reach a new highway ? A review of the total process is at least necessary so that a scheme of restructurization of the contents, forms, and functions of education emerge clear.

The question is 'how' ? How are we going to formulate a new educational policy and what will be its aims and objectives ? If the answer is to be derived from the foregoing analysis the aim of education should be system 'building' rather than system 'maintenance'. It should lead to a non-elitist society and to, what Gandhi calls, a non-violent order. Education must in effect lead to the upliftment of the down trodden, to defusion of power and its deconcentration as also to the evolution of a culture of non-accumulation and equity. The present mode of education, which we wish to reject here and now, serves the purpose of a particular society. That society is based on competition, conflict, exploitation, over organization, greed, power and profit. To the extent the welfare societies of the West and the Communist societies of the Eastern Europe have tried to obtain basic comforts for as many of their citizens as possible they have certainly helped to blunt the edges of the system. But neither of these societies at no time in human history have tended to curb the monopolies of power. Do we want such a society any further ? The profile of the new system of education can only be clear when we are able to draw the picture of the alternative. While we shall have an occasion to return to this subject of profiles and pictures later, enumerated below are some of the specific steps which may help in restructurisation of the educational system step by step.

Education must make a vigorous effort to uplift the poor and to abolish all monopolies and privileges. Gandhi had sought to achieve this end by ensuring that all the curriculum of education provide for productive manual labour and other activities rather than mere scanning of books. The aim was to pull down the classes - the conscious non-productive, book oriented, employed, intellectual to the level of the productive, self employed, small producer. Gandhi accordingly wanted that the elite should soil their hands and break the barriers that separate them from the masses. The purpose was to 'declass' the elite as also to make every consumer a producer. No one in such a society was to remain a parasite exploiter thriving on the labour of the neighbour. The other aim - the main aim of the Gandhian scheme was however the development of a non-elitist, non-exploitative, non-violent social order. That aim still remains valid and should provide the objectives of peace education in all modern societies of the day. The plans of reconstruction provided by Gandhi will need however to be further strengthened in the light of the growing power of education and its all embracing dysfunctionality that we have described before. Some fundamental steps of far reaching significance are therefore necessary to implement the Gandhian Scheme as also the goals of new education described earlier.

A non-elitist society would obviously require an equitable mode of education. What is important in this regard is not to confuse 'equality with 'equity'. 'Equal opportunities for all' is thus no longer a valid slogan. For equality of opportunities offered to 'unequal' individuals cannot and have not in the past led to equitable results. What is needed in this context is a definitive recognition that there exists specific classes, castes and groups, in the society who have reached unequal standards of growth and enjoy privileges of different order. Conscious efforts should therefore be made to bring these various up to the same level of educational accomplishment. It would accordingly require that certain special advantages are given to the backward and these are of a revolutionary order. In India, this should require among others a special

medium of instruction for different sub-cultural groups exposure to different school systems. India has sixteen main languages spoken by about 92% of its people. They are the people who, having been educated through the medium of English, are now developing their mother tongues known as 'regional languages'. They naturally insist that all education should be imparted through the medium of regional languages--the respective mother tongues of the 92% of people along with the provision that a foreign language be taught to all those who go for higher education. The 'elite' among the elites of the society will thus alone have the benefits of the latter !

There are about 8% of people in India¹⁰ who, however, do not as yet speak any of the regional language. Neither do they know a foreign language nor have they been able to reconstruct their 'dialects' into well developed languages. Generally they belong to the peripheral structure of the Indian society. Lying in border areas, the inaccessible hills, desert tracts and forests, they do not belong to the main-stream of culture, power and the decision making process of the land. The opinion is that they too should be educated through the regional languages of the areas. Although they are not the languages of the peripheral groups, an overwhelming majority of the people of the area, where these groups live, speak those languages. Borrowed, in fact, from the literature of a sophisticated coterie, the languages are of those who have already reached a more advanced level of development and represent the dominant culture of the area. The peripheral groups belong to different subcultures and speak different dialects. The insistence that both the groups those who speak the regional language and those who do not, should learn through a common medium, is provided in the name of 'equality of opportunities'. But will such equality lead to equity or turn the 'peripheral groups' into mere second class citizens of the area ? While the groups that have developed languages should do well to learn through their mother tongues, the peripheral population, the remaining 20% of Indians should be given opportunities to learn through any medium they choose

especially English, a foreign language that still opens up a vast vista of opportunities and privileges to its recipients. It is obvious that such a special privilege granted to the under dog will go a long way to over-turn the pyramidal structure of the society upside down. The recent experiments in China to teach the masses a foreign language, English in this case, and that of Rumania where learning of two foreign languages is now compulsory for all, is a definite measure in this direction, calculated to bring real equality to all sections of their populations. The example is worth emulating in India. The tribals, the Harijans,¹¹ the poor, the backward, the downtrodden should therefore be given the special privilege of learning through the medium of a foreign language, whereas all others may learn own mother language of which they are justly proud. That would give an additional advantage to the weaker sections over all those who already have had greater opportunities and occupy a more advantageous position in the mainstream of the competitive society.

A similar effort should be made to give special opportunities to the non-meritorious - the students who are the rejects of the existing educational system and fail to reach a standard. Others, who score high in terms of academic accomplishments are entitled to go to better colleges in order to be tutored by better teachers. In the new mode of education, one that has to guarantee an equitable opportunity to all sections of the populations, the reverse shall be the case. The poorer the merit of the student, higher should be the level of the teacher called upon to attend to him. Conversely the lower standard of the tutor, the higher could be the level of the student. For one who is meritorious and is already advanced does not surely need much of guidance as compared to those who are naturally backward. Such a policy will however require a completely different set of indicators for the evaluation of educational programmes. A measurement of the success of the educational policy should thus under the new scheme be judged not by the number of students that go to school but by the social background of those who are allowed to benefit

from the educational inputs. A system will thus be reckoned as more successful only when a larger number of students, born of the 'lower' strata, take their seats in the class rooms and when the non-meritorious and all those who belong to the periphery occupy some places of pride along with the advantaged, the sons of the 'mainstream' culture of the country.

VII

Education must, in the changed context be decidedly delinked from employment. While the latter should be a function of the total system and of specialized 'vocational' and professional institutions every employer could device his own criteria for recruitment and hold examinations accordingly. Education would then aim at the enlightenment of the recipient's mind and be value oriented. Its task will not be to turn out managers, administrators and mechanical hands as the main products of an educational pressure cooker but to ensure that the virtues that create a coterie of academic, managerial and administrative elite reaches the mass of the people and become universal in their projection. That will mean that education should provide to every one the where withall to obtain atitudinal growth and intellectual maturity. It is not the contention of this paper that education should be dysfunctional to employment or to academic, managerial and administrative developments. The aim of the educated should on the other hand be to create employment opportunities not only for the recipient but for others as well. The purposes is to ensure that every country should first have a high level of average education for all before it seeks to develop special elite moulds.

The real purpose of education is to create the culture of the new society. and to give to all its members enough education to live upto it. Such culture would emphasize harmony, spirit of service, cosharing and nonviolence, rather than competition, exploitation and violence. It should try to build a new typology of institutions, develop technologies, and experiment with 'sizes' of industries that do not lead to

aggrandizement and exploitation. Education "should accordingly reorient people to consciously endeavour for the establishment of a non-domineering, non-competitive society, as also for the rejection of the existing order

Seventy per cent of the people of the world lie submerged in poverty today. The efforts now in vogue in every country is to raise their standards of living and to defeat all others' in the race for affluence. While relative rates of growth provide interesting criteria of development, it should now be evident that the world as a whole can not ever be able to revel in affluence and that increase of productivity at one part of the globe must account for a corresponding fall somewhere. It is therefore not possible to reach the high standard of living enjoyed by some people in the North World on a global basis. Peace in the world or a non-violent equitarian society can only be built by a thin dispersal of the world's resources and on the basis of a limited standard of living

Education should prepare people to accept that reality. It should enable them to see in the future of the world a place where one lives in a 'near' poverty standard and do not aspire for the impossible. A zero rate of growth and an agricultural society, where production and not only consumption is everybody's responsibility is to be the main stay of that system. There the prices and wage do not chase each other; there development takes place without growth by merely removing in its stride the basic obstacles to the conduct of a healthy social life. Such a system, non-equisitive and non-elitist is ruled by consensus and not by dictatorships either of the majority or of the meritorious oligarchies. As centralised large scale monoliths collapse in that milieu and a stable social and economic life emerges the new system of education will help to remove the last vestiges of violence from its roots.

If we have given above the outlines of the new society two more observations will be necessary before we end. First of all, it is to be clearly understood that the 'increasing volume

of educational explosion is going to change not only the functions of the system but also its structures and forms. Even today there is only one seat available for every eleven student that are admitted to colleges in Italy¹² a country that spends 20% of its budget on education. In India, which spends only 1% of its budget on the subject, no institutional structure, however carefully devised, will ever be able to cope with the rising demand for schooling in the coming decade. The pressure will then act on the reverse gear. It will demolish standards, introduce strikes and lockouts, precipitate violences and create catastrophes of different dimensions. Education, in the new set up, will therefore have to be transmitted through written words and the spoken, through correspondence and the mass media to every home in that society.

The home, the cottage of every family, should then be the real centre for education with the parents playing the main role of the teacher. The new curriculum will naturally have to be enriched by drawing from the books of life as also from organized community programmes of different description such as manual labour, social services and specific development activities. The guardian at home, now assuming the role of the teacher will also help to develop a new form of relationship in the modern home of the atomised society. The design for such a scheme of cottage education will have to be done with care. It is needless to say that the state will also have to play an important role in enriching the contents and methods of the new system. Yet education in the new set up will mainly be a private enterprise. As the responsibilities of the state grow and the public sector of economic enterprises expand this new private sector of cottage education will help in more than one way. It will save democracy. It will kindly the flames of freedom. In nations where the states controls most of the individual's life and business, the mind will now be free. It will be rescued from subservience to any overpowering system and allowed to function in a new heaven of freedom.

Foot Notes :

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- 1 1 For a fuller treatment of the subject see Sugata Dasgupta's 'PEACELESSNESS AND MALDEVELOPMENT' published in International Peace Research Association Proceedings Vol. II: Development and Peace, Netherland; Koinklijke Van Gorcum and Company 1968: Quoted below a relevant extract regarding the meaning of the term Peacelessness "India, as many other countries of Asia, had in fact not known of wars before their independence. Yet, the fact remains that the people of the States of the Eastern World have neither been in peace. Far from it, poverty, both economic and psychological, predominance of traditional stereotypes of economic and institutional framework had always made life in this part of the world peaceless 'nasty, brutish and short'. Although the wars were infrequent in the East, there was at the same time no peace at all for the vast masses of its people. The nearest definition of the state of life from which they suffered could only be described by the new term, I choose to use, namely, the concept of "Peacelessness". The horrors of life and the dimensions of peacelessness in a country where average per capita expenditure for quite a large section of population is six annas a day (1/20th of a dollar) can hardly be imagined." (pages 20-21)
- 1 2 For a fuller treatment of the subject see Sugata Dasgupta's "THE CENTRAL THEME" The Seminar No 122, New Delhi (Oct. 1969) and "FOR THE PACIFISTS" by M. K. Gandhi (The Introduction) Edited by Bharatan Kumarappa (The Navajivan Press, Ahmedabad)
- 2 3 Vide "Caste Class and Occupation" by G. S. Ghurye—Popular Book Depot. Bombay 7. Chapters III & IV for a fuller understanding of the significance, structure and function of the Caste system which provides the mould of the Brahminical order. The Brahmin as a hereditary self perpetuating group was in the apex of the society and 'Sudra' at the base. The Brahmin is the ruler who, according to Manu the law giver "is the lord of the Whole creation" (page 88) 'The whole world is his 'property'. As compared to this the Sudra is a nonperson in society. According to Kautilya "A Sudra calling himself a Brahmin shall have his eyes destroyed by

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poison. If he defiles a Brahmin woman he shall be burnt to death" (page 90).

- 3 4 The early Aryan religious book of verses providing the terms of reference of Hindu religion.
- 5 The Indian Penal code provides for award of a higher and comfortable class of custody for a similar offence provided that the convict has a B. A. Degree.
- 6 For a fuller treatment of the theme see Guy Hunter's "Modernising Peasant Societies" O. U. P. pages 240-259 the chapter on education.
- 4 7 Vide Urban Studies (U. K.) Volume 6 No. 3 November 1969 Trends of Urban Change : Oliver & Boyd Ltd. and Rudof Kin on "Education" in Observer 29th March 1970.
- 6 8 Vide Herald Tribune (International) Saturday-Sunday November 4-5 Paris Ed. Claire Sterling Writes From Rome (page 8).
- 7 9 An Indian world denoting sacred key verse, and aid to worship, whose meaning are known only to the priest.
- 12 10 Calculated from Indian Census report 1971 which says 8 per cent of the India's population does not speak her sixteen major languages.
- 13 11 'Harijan' is a new word coined by Gandhi for the untouchables. It literally means Gods own men.
- 16 12 Vide Herald Tribune (International) Saturday Sunday November 4-5, Paris Ed. Claire Sterling Writes From Rome (page 8).

TRENDS IN EXAMINATIONS— INDIA AND THE WEST

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When the British left India in 1947, the new nation inherited a system of education and a system of examinations which had been developed during a long period of colonial rule and were modeled after the pattern of education in the United Kingdom. In both countries the educational system was designed primarily to provide educational opportunities to an elite few. In both countries since that time there have been determined efforts to expand the base of education, to provide educational opportunity to a much broader portion of the population.

In India there have been proposals to change the nature of education in ways that were intended to make it better adapted to the character of Indian society and to India's needs as a developing nation. By and large, these proposals have had little effect. The growth in numbers of schools and colleges has been spectacular, but the methods of teaching and learning have changed but little.

The nature of examinations has also been slow to change. The significant examinations at both school and college levels are external, prepared and administered by state boards of departments of education at the school level and by universities at the level of higher education.

External examinations are common in European countries, and from there the system spread to many other parts of the world, along with the spread of colonialism. Particularly in those countries whose educational systems were heavily influenced by Britain and France, the examination systems are similar to that of India. An outstanding exception is the United States, where the educational system developed after

the end of colonial rule and where external examinations have not been commonly used since very early times.

Complaints about the examination system have been heard in India for many years. Soon after Independence the Radhakrishnan Commission, studying university education, declared that improvement of examinations was the most needed reform of higher education. In 1953 the Mudaliar Commission spoke in the strongest terms about the harmful effects of the examination on secondary education. The Kothari Commission in 1966 referred to "the baneful effects of the system on education in general, and secondary education in particular." These examples could be multiplied many times.

It has been generally reorganised that many improvements of education in schools and colleges have been inhibited, if not completely stifled, by the nature of examinations. Since success in examinations is considered to be the goal of education, it is not strange that all the processes of teaching and learning tend to be controlled by the examination system.

The examinations for secondary education and for higher education are indeed defective in many ways defective as instruments for measuring the achievement of students and defective in their influence on education. Many attempts have been made in recent years to improve the system by overcoming the deficiencies with which it has for so long been riddled, but much remains to be done. It is fair to say that enough attention has been given to the problem that a definite trend toward examination reform has been established in India.

In order to indicate the nature of this trend, it is useful to review the principal deficiencies of the traditional examinations,

First and foremost, reform has focused on the quality of the question papers themselves. The most frequent criticism of the questions is that they concentrate so heavily on testing the ability of students to reproduce memorised information. With few exceptions, the questions can be answered on the basis of rote memory from notes and guide books. This criti-

cism does not deny that knowledge, even memorised knowledge, has value in education. But the critics contend that this is not the whole of education. They want students to develop powers of understanding and thinking, ability to express their own thoughts, and the habit of applying their knowledge to significant problems. Many teachers agree that these kinds of competence should be developed in schools and colleges. But teachers often see no hope of moving in that direction if such abilities are ignored in examinations. It is natural that teachers should try to teach, and students try to learn, in the way that seems most likely to produce good examination results.

A second criticism is that the question paper for any subject covers only a small part of the subject. The questions refer to only a few of the topics in the syllabus. Any set of questions must be a sample from a large number of possible questions. A paper which requires students to answer only five or six questions is an inadequate sample. This is an inevitable consequence of almost exclusive dependence on the essay type of question.

Sometimes a paper-setter, when he includes ten questions and instructs the students to answer five, feels that he has covered the syllabus to the extent of ten topics. But this coverage is an illusion; it does not represent the coverage made by any of the students.

A third criticism of the current examination is that very often the questions are not clearly stated. Many of them are vague; some are ambiguous. This makes it difficult for students to know what kind of answer is desired. It also makes it difficult for examiners to know what answer is expected and how different kinds of answers should be valued.

The valuation of answers by examiners is the subject of another criticism, and it is a serious one. Sometimes this may be a criticism of the examiners, but basically it is a criticism of the kind of questions that are used. Even when examiners are thoroughly competent and conscientious, it

remains true that their judgments differ widely as they assess the quality of answers to essay-type questions. The variance among examiners is, at best, so great that there is no assurance that a student's marks depend more on the quality of his answers than they depend of which examiner happens to mark his answer book.

We should point out that this deficiency is not at all peculiar to Indian examinations. It has been well demonstrated by research in several countries—notably by Starch and Elliott as early as 1912 in the United States, by Hartog and others in Britain, and very clearly by Mahalanobis, Gayen, Harper and Taylor in India.

All of these criticisms amount to a charge that the examinations are not valid and reliable instruments for measuring the educational achievement of students. If a board or a university is to measure the quality of learning of the students from different schools or colleges, and compare the level on one student with that of another, the measurement should be made as accurate as possible. Otherwise, the measurement cannot be fair to the students. At present they are measured with very imprecise instruments.

In fact, the same instrument is not used for all the students. Each student is in effect permitted to choose the instrument to be used to measure his learning. As long as there are optional questions, the students are not taking the same examinations. The unreliability of measurement is compounded.

The impact of examinations on what occurs in school and college classrooms, which we may call their educational value, is even more important than their measurement value. The educational value of the current examinations is largely negative. Some of the effects are readily apparent.

Because the examinations put a heavy premium on memorised information, teaching tends to be confined to lecturing, feeding to students the information which they should acquire. But students do not seem to be much interested in systematic

study during the school or college years. They prefer intensive cramming at the end of the programme. Probably they are correct in judging this to be the most efficient way of fixing in mind the information they will need to have.

Of course, what they have learned is quickly forgotten. It has little value for them except as preparation for the examination.

Because of the meagre coverage of the subjects by the question papers, students are not encouraged to value breadth of learning. They know they do not need to cover the whole syllabus, and so they study selectively. With the customary choice of questions, it is quite possible, not only to pass the examination, but to get maximum marks, by mastering a relatively small portion of the syllabus.

Because of variation in the judgments of examiners, of which students are at least in part aware, they know there is an element of sheer luck in the awarding of marks. When students regard the examination as a gamble, and when so much depends on the outcome, they are tempted to use any means, fair or not, to secure a favourable result.

If the hope of improving education is hampered and frustrated by the nature of examinations, it is a situation to be deplored. Teachers and administrators seem to be in general agreement that not much can be done to improve their educational procedures until the examination system is changed.

This is the situation which led Indian educators to launch an extensive programme of examination reform. The state boards of secondary education took it up first, with vital assistance by the Central Examination Unit of the National Council of Educational Research and Training. Within a decade almost all of the states had developed programmes to improve their school-leaving examinations. Later some of the Universities began to initiate similar efforts, and they have recently been given substantial encouragement by the University Grants Commission.

The general tendency in these programmes has been, first, to consider the objectives of teaching the various subjects, to ask what kinds of competence it is desired that students shall develop. This consideration had been heretofore largely ignored, but it is the key to rational development of examinations. Efforts have been made to plan question papers so that the achievement of important objectives is tested. Papers have been designed to include questions which require students to demonstrate intellectual skills, such as understanding of concepts and principles and ability to apply these to new situations and problems.

An effect of this change in question papers has been to encourage teachers to aim their instruction toward development of these abilities, with less emphasis on rote memory. Where this has occurred, students have found that regular class attendance and systematic study are important. Abilities of this kind cannot be developed by last-minute cramming.

A second tendency has been to increase the number of questions in a paper. This has been accomplished by shifting in part from essay questions to other types. Short-answer questions have been used in increasing numbers, and there has been some limited use of objective questions. Thus it is possible to have many more than five questions answered in a three-hour period. The questions can cover the syllabus more extensively, and students learn that they must study the subject completely if they wish to make good marks.

To achieve a higher standard of quality in the framing of questions, training has been provided for paper-setters. The myth that anyone who is competent to teach a subject is therefore competent to write good examination questions does not die easily, but some impact has been made upon it.

Short-answer questions lend themselves more readily to uniform valuation by examiners. Objective questions eliminate the need for examiners' judgments entirely. Still it has been found wise to require paper setters to write their own answers to short-answer questions and outline their answers to

essay questions, at the same time indicating how the elements of each answer should be valued. This practice helps paper-setters to clarify their questions and it also helps to "objectify" the work of examiners.

The boards and universities have not felt that they could eliminate optional questions altogether, but options have been reduced and their comparability better controlled. Instead of inviting students to 'answer any five' out of ten questions, the paper-setter may permit them to choose within pairs of questions, in which the alternatives are testing the same ability with reference to the same subject matter, and they are questions of approximately equal difficulty.

All of these reforms have been concerned with the quality of question papers. Other aspects of the examination system have also been improved.

Improvement of practical examinations has been achieved in a few instances. Clarification of the objectives of these examinations, development of rating scales for judging the performance of students, the use of more than one examiner, and insistence that examiners discuss and agree in advance on standards of performance—all these have helped to make practical examinations more valid and reliable.

An important criticism of the examination system is that it concentrates the appraisal of students' learning in a single occasion at the end of the school or college programme. This places an extraordinarily heavy burden on the students, both intellectually and emotionally, and it does not encourage sustained study through all the years of the programme. In some situations this has been corrected by "spreading out" the examinations, giving some of them at the end of each year.

Many teachers in India have come to believe that it is not necessary or desirable to place the entire burden of evaluation of students on the external examinations. There is considerable interest in the development of internal assessment. It should be emphasised that internal assessment means the continuous assessment of the achievement of students by teachers within

the school or college. It does not necessarily mean that marks awarded internally are to be combined with examination marks. When it is understood in this way, many teachers (and some students) have advocated it, while others have expressed grave misgivings concerning it.

The misgivings are caused by the unfortunate record which internal assessment has had in India in the past. For this the tendency has been to criticise the integrity of teachers. Often it is said that teachers cannot be trusted to assess their students accurately and objectively. But objective assessment must be based on objective evidence, and the means of collecting such evidence had not been made available to teachers. In at least one state the knowledge and the measuring instruments necessary for a valid programme of internal assessment have been developed in secondary schools, and the programme seems to have worked well. There is reason to believe that other states and some universities will explore the possibility of moving in this direction.

We have discussed examination trends in India at some length, believing this to be the primary interest of our readers. Largely for the purpose of giving a basis for comparison, we turn now to a brief account of some trends in the West. As representative of Western trends, we shall consider examinations in British, French, and American education.

Since the British pattern was the model for the examination system in India, it is natural that a good deal of similarity is found in the two systems, and some of the same problems. But in the last thirty years the system did not remain frozen in Britain as much as it did in India. This is to say that examinations were improved faster there than was true of Indian examinations.

The British Ministry of Education exercises general supervision over educations, and examinations but a good deal of authority is delegated to district boards.

In England and Wales there has been a 'proliferation of examinations and examining bodies. Many different boards give examinations in different parts of the country. The General Certificate of Education (GCE) now has rivals, notably the Certificate of Secondary Education (CSE). The traditional 11+ examination, which for so long determined the type of secondary education for which a student was eligible, has been considerably reduced in importance.

GCE examinations are still given at the ordinary (O) level, for determining successful completion of secondary education, and at the advanced (A) level, to qualify for higher education. The CSE examinations serve similar purposes. Some CSE papers are set and marked externally; others by the schools, subject to moderation by the regional board. This flexibility has led to considerable experimenting with new types of examinations.

Reliance on the essay type of examination has been recognised as faulty, and objective questions have been introduced in a number of examinations. This tendency seems to be growing. It has led to a new emphasis on testing the achievement of clearly defined objectives.

These changes have been partly due to the greatly increased numbers of students in secondary and higher education, and partly due to increased knowledge of scientific methods of testing.

In France the national government is responsible for education, including examinations. Here is a highly centralised system, which requires a vast and complex administrative machinery. A French student faces examinations at many points on the educational ladder, from the primary certificate to the baccalaureat, which is the qualifying examination for higher education. These are external examinations, both written and oral, which are highly valued as a means for impartial assessment.

In addition to the regular examinations, there are many "appeal examinations" which students may take when their parents disagree with assessments and with the resulting direction of their children into educational streams.

French education has undergone considerable change since World War II. The rigid separation of academic and technical studies has been modified in favour of more comprehensive schools, but the examinations seem to have changed very little.

The system of external examinations, marked by anonymous examiners, is indeed impartial, but that does not mean that assessment is accurate or fair to students. Great variations have been found in the standards of examiners. There was at one time an attempt to apply statistical adjustment to such variances in the marking of baccalaureat papers, but this is difficult to apply to essay examinations and it has been abandoned. Objective testing has made no headway in France.

In France, as in India, examination results have high social and vocational values, in addition to their educational value. They may carry great prestige, and they open doors to vocational opportunities.

In the United States it is difficult to identify what might be called a "system" of examinations. Examinations and grading of students are not only internal; they are individual—that is, each individual teacher is responsible for assessing the quality of learning of his own students and for preparing his own examinations.

In this country, as in India, education is a responsibility of the states, not of the national government. Responsibility is even further decentralised. Much of the state's authority is delegated to local school districts. The governing body of a district is a Board of Education, elected by the local people and given power to levy taxes for support of the schools. State

funds are provided to supplement the local funds. Only recently has the national government provided additional financial support, and this has been given in support of programmes deemed to be of national importance.

In both schools and colleges the individual teacher's authority to determine his standards of grading and to set and mark his own tests and examinations is unchallenged. Students receive grades in each course, for a semester or a quarter; these grades are accumulated and averaged. The school or college determines the number and kinds of courses to be completed and the average grade required for graduation.

American students may "graduate" at more than one level. They graduate from high school, and they graduate from a college or university. High school graduation marks a level of education, whether or not the student will continue to higher education. Here the completion of high school education is not viewed as merely a qualification to enter a university, and it does not in itself qualify one for continuing beyond the secondary stage.

In India the Secondary Education Commission (1953) urged the development of secondary education as "a stage complete in itself with its own ends and special purposes." Though this view has not been adopted in India, it does prevail in the United States.

American colleges are not required to be affiliated with universities, and they are empowered to grant their own degrees.

Most Indian educators, and to a large extent the Indian public, are quite sure that standards of quality would disappear, and chaos would beset the educational system, if there were no external authority to determine how school and college students shall be examined and marked. How has American education been able to avoid these consequences?

It must be said that American schools differ in quality, American teachers are not all equally competent in evaluating the achievement of their students, and standards of grading are not perfectly uniform among schools and colleges. Yet this system does work reasonably well—well enough that hardly any Americans wish to substitute a system of external examinations.

The American public is confident that school and college grades and certificates of graduation represent an educational "currency" that approaches a standard value. There are, in our judgement, four factors which contribute to the ability of educational institutions to hold this confidence. They are (1) state recognition of schools, (2) state certification of teachers, (3) accreditation of schools, and (4) strong professional associations of teachers and administrators. The first two of these are forms of governmental supervision, which provide a measure of enforcement of minimum standards. The last two represent voluntary participation in unofficial (non-governmental) agencies. These, we suggest, are in large part the American substitutes for a system of external examinations.

Only in the State of New York are there state examinations which bear resemblance to the system in India. Many New York students, as they are finishing high school, take what are called the Regents Examinations. But these examinations are not compulsory for all students, and they do not determine success in completing secondary education. They are required of students who wish to enter any of the state-supported colleges of New York.

In other parts of the country many colleges and universities require their applicants to take one of several tests which have been standardised on a national scale. Most prominent is the Scholastic Aptitude Test (SAT). Each institution determines whether it wishes to prescribe such a test and what level of score it will require for admission. Other similar

tests are frequently required for admission to post-graduate education. It should be emphasised that these test scores are always only part of the evidence on which admissions are based.

Standardised tests are widely used in schools and colleges for other purposes also. Tests of many kinds and in many subjects are taken by students at various grade levels. In recent years there has been a National Assessment of Educational Progress, and many of the states now have similar assessment programmes. All of these are used for judging the relative standings of schools and of classes within them. Their primary purpose is to help teachers appraise the progress of their students in relation to state or national norms. They are not used for determining the marks of individual students.

Earlier in the history of American education teachers commonly marked their students on a numerical scale, so many marks out of 100. It became recognised, however, that such a scale is quite unrealistic. When measuring the quality of answers to examination questions, nobody knows what 100% may mean : in fact it means nothing. As methods of statistical analysis were developed, and the unreliability of marks was recognised, it became apparent that 100 distinctions (101 if zero is included) are more than any teacher could make. As Starch and Elliott pointed out in their famous papers, one might have confidence in the difference between 60 and 70 marks, but not between 60 and 61.

The result has been to make the categories broader, so they include an allowance for error, and to reduce their number. Almost universally at the present time American students are graded on a five-point scale A, B, C, D, and E or F (fail).

Letter grades must be translated into numbers if we wish to calculate an average grade - and it is the average that carries most weight in American judgments of students. Most commonly the student has four points for each grade of A, three points for B, two for C, one for D, and 0 for F. Then

his overall grade average can be determined. This system of grading is not unknown in India : it is used in the Agricultural Universities and the Institutes of Technology.

It has been noticed that in the last decade the average grades of American college students have been rising. This has been true in colleges and universities throughout the country, large and small, public and private. It has been called "grade inflation," and it is a puzzling phenomenon to many educators : it does not seem to be attributable to any rational cause. Clearly it is not due to a generally higher ability of students, for average scores on the most widely used standardised tests have been falling during the same period. There is some evidence now that the rate of inflation has slowed down, and it may be levelling off.

It is interesting to speculate on the future of the trends which we have been describing, though we can only speculate rather than predict.

In India "examination reform" is an expression familiar to everyone associated with education. Interest in improving examinations has grown at an accelerated pace, yet the changes have come slowly. They will undoubtedly continue to grow, but the rate of change will probably continue to be slow. There is an effort, led by the University Grants Commission, to grant autonomy to some of the high-quality colleges. If this occurs, these colleges will be responsible for their own examinations. Implementation of the proposal has made little headway thus far.

It can be expected that improvement of British examinations will continue along lines already established. It seems likely that internal evaluation will take on increased importance in the future.

France seems likely to move toward decentralisation of control of education to some extent, but we see no reason to expect significant changes in French examinations

In the United States examinations may become less important in schools and colleges, as teachers use other means

of evaluating their students. The fairness of standardised tests to minority groups has been, and will continue to be, debated ; this will lead to modification of some of the tests. In some courses students will not be graded, results being recorded simply as credit (undifferentiated) or no credit. These results will be omitted from calculation of a student's grade average.

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EXAMINATION SYSTEM IN INDIA

V. S. MISRA

1. Variety of Educational Structures

India is a vast country with land area of around 1.25 million square miles and a population of approximity 600 mililion. We have 16 major languages, more than 600 dialects, and people of diverse religious faiths and social and cultural backgrounds. Indian Union consists of 21 states and 9 union territories. Consequently, education responsibilities are divided among a large number of agencies landing to a variety of, educational structures and nomenclatures as shown in Table 1 and 2.

TABLE I
Pattern of School and College Classes in different
States (1965-66)

States	Duration of stage in years						Total
	Lower Primary	Higher Primary	Secondary	PUC	Higher Sec.	First Degree.	
Andhra Pradesh	5	3	3	1	4	3	15
Assam & Nagaland	5	3	4	1	5	3	16
Bihar, Gujarat & Maharashtra	7(a)		4	1		3(b)	15
Jammu & Kashmir, Punjab, Rajasthan & West Bengal	5	3	2	3	3	3	14
Kerala	4	3	3	2	-	3	15
Madhya Pradesh	5	3	-	—	3	3	14
Madras	5	3	3	1		3	15
Mysore	4	3	3	1	4	3	14
Orissa	5	2	4	1		3	15
Uttar Pradesh	5	3	2	—	2(c)	2	15

- (a) Integrated primary course, there being, no separate middle schools.
- (b) In the University of Bombay there is a two-year intermediate course followed by a two-year degree course.
- (c) Before to intermediate colleges.

N.B. (1) In totalling up the duration of each stage, please include (i) Secondary and PUC or (ii) Higher Secondary, but *not* both.

- (2) Among the Union territories, Delhi, Andaman & Nicobar Islands and Laccadive, Minicoy and Adivindi Islands have adopted the higher secondary pattern. The other union territories usually follow the pattern of the State with whose Secondary Board or Universities they co-ordinate their educational programmes (e.g. Himachal Pradesh follows Punjab).

Education Commission Report (1964-66) Published By N. C. E. R. T., 1971, page 48.

TABLE II

Existing and Proposed Nomenclatures for Various Stages of Education

Nomenclatures Proposed	Existing Nomenclatures
SCHOOL EDUCATION	
1. Pre-primary	1. Pre-Primary 2. Pre-basic 3. Kindergarten 4. Montessori, etc.
2. Primary (Classes I-VII or VIII)	
(a) <i>Lower Primary</i> Classes I-IV or I-V	1. Primary in some states (e.g. Punjab) 2. Lower Primary in some states (e.g. Gujarat) 3. Junior Basic 4. Lower Elementary in some states (e.g. Madras)

- | | |
|--|---|
| (b) <i>Higher Primary</i>
Classes V-VII or
VI-VIII | 1. Middle in some states (e.g. Punjab)
2. Junior High School (e.g. Uttar Pradesh)
3. Upper Primary in some states (e.g. Gujarat)
4. Senior Basic
5. Higher Elementary in some states (e.g. Madras) |
| 3. Secondary Classes
VIII-XII or IX-XII | High School ; Higher Secondary School |
| (a) Lower Secondary
Education Classes
VIII-X or IX-X | High School |
| (b) Higher Secondary
Education XI-XII | This will include Class XI or PUC in some
states (e.g. Rajasthan). It will include Junior
Colleges in Kerala.
It will include Intermediate Classes in Uttar
Pradesh.
It will also include terms like pre-professional,
pre-medical and pre-engineering. |

HIGHER EDUCATION

- | | |
|-------------------------|---|
| 4. Professional Degrees | All degrees which lead to a professional qualification (e.g. M.A., M. Sc., M. Com., B.E , M.B.B.S., B.T., LL.B , B.Ag., etc.) |
| 5. General Degrees | All degrees other than professional ones. |
| 6. Under-graduate | All courses leading to the first degree. |
| 7. Post-graduate | All courses beyond the first degree (excluding certain first degrees given after the first degree, e.g. B.Ed.) |

GENERAL

- | | |
|---------------------------|--|
| First Level of Education | This will include pre-school & Primary Education. |
| Second Level of Education | This will include high school and higher secondary education. |
| Third Level of Education | This will include under-graduate and post-graduate education and research. |

2. Variety of Examination Systems

As an effect of the division of educational responsibilities various authorities are concerned with examinations at various stages e. g. Block Development Committees (Block is a unit of the District), District Boards (District is a unit of the State), State Secondary Boards, Universities and institutions deemed to be equivalent to Universities. Each has its own system of examination. It may as such be more appropriate to say that India has several examination systems rather than one. We shall, therefore, deal in the following pages with the major practices as may be considered typical for the country as a whole. Those interested in further details may consult references given in the bibliography.

3. The Major Practices.

3.1 Importance of Examination :—Examinations are held in high esteem in India. There is hardly any country in the world where examination marks play such an important role in determining not only academic but also social and cultural status of a person as in India. People are usually branded by their examination marks for the whole life. Marks obtained by a person at an academic examination, which he might have passed several decades earlier, are given much weightage.

Several institutions would not select a teacher unless the average of his percentages of marks in different examinations from Higher Secondary School and above is above 54. For most competitive examinations —whether for the recruitment to managerial or clerical posts —the eligibility of a candidate is determined mainly by his marks in academic examinations. The competitive examinations of the Union Public Service Commission seem to be the solitary exceptions which any candidate possessing the prescribed degree/diploma/certificate is allowed to take whatever his marks in his academic examinations.

3.2 Examinations Agencies :—There are several examination agencies in the country. They can broadly be classified into

internal (See 3.3) and external (See 3.4). Every Educational Institution is an agency of internal examination. Agencies of external examinations are usually of the levels of district, state and institutions of higher learning. The district level agencies conduct external examination at the end of the primary school education. At the state level, there are Boards of Secondary Education, one in each state. The Board prescribes curriculum for the schools in the state and conducts secondary school leaving examination for these schools. There is great diversity in the courses prescribed by various state Secondary Boards in the country. Similarly, the academic sessions of their schools also vary. This makes it difficult for the students to move from one state to another. To cater to the needs of such students two examination agencies at the Secondary School level have come up, who conduct Secondary School Examinations on All India basis. These are :

- 1. Council for the Indian School Certificate Examinations.**
- 2. Central School Organisation**

Each of the two agencies has a uniform syllabus and academic session for all its schools in the country. At the higher education stage, universities and institutions deemed to be equivalent to universities are autonomous bodies. They prescribe their own courses and conduct their examinations. At the national level, there are certain agencies who conduct mainly competitive examinations for the award of scholarships etc. The National Council of Educational Research and Training is one such agency which conducts science talent search examination every year to identify potential science students.

3.3 Internal Examinations :- As stated in 3.2 each educational institution conducts its internal examinations. The construction of the question paper, the administration of the tests and the evaluation of the scripts are the institution's responsibility. The purpose of these examinations are to diagnose the weaknesses of the students, provide feed-back to the teachers, and promote students to the next higher class.

The type of tools used in the examination are oral and written tests—mostly of essay and short answer types. Some institutions are experimenting with Open Book Examinations and Objective Tests. Open Book Examinations, as the name suggests, candidates are allowed to consult books for answering questions. The internal examinations are held periodically. The period could be a month, a quarter, half a year, or a year. Some institutions determine a candidate's achievements by his performances in all the periodical examinations, some others by his performance in only the annual examination. There is nothing hard and fast about it. The standards of the internal examinations vary. Some institutions have very high standards and some very poor. To deserving students double promotions are given in primary classes (that is, the candidate is allowed to pass two classes in an academic session). However, in higher classes such practice is not followed.

3.4 External Examinations :—As stated in 3.2, the end-of-the-school examinations are conducted by external agencies. This is considered important for maintaining a parity in educational standards of different schools. In the external examination the same question paper is used for all the candidate sitting for the examination.

These agencies try to maintain a high educational standard. So the failures in these examinations range from approximately 40% to 70%, which are probably highest figures of failures in the world. Being conducted by agencies supposed to be impartial, the external examinations command much credibility in public. So much so, that marks obtained in only these examinations are taken into account while evaluating the educational attainment of a person.

3.4.1. Frequency of Examinations :—External examinations are generally held annually barring the case of the Semester System of examinations which are held twice a year i. e. at the end of each semester.

3.4.2. Types of Tests :—During the British Rule in India, educational practices in the country received inspiration and

guidance from the British practices. As in those days essay-type examinations were popular in the U. K., these became popular in India also, and their use continues virtually unabated even now. Optional questions are invariably provided in our essay-type examinations. These could be in several ways : the question paper might contain some 10 questions out of which any 5 or 6 are to be attempted, the question paper is divided into several parts and candidates are required to answer a given number of questions from each part, or each question has several alternatives of which candidates are required to attempt one, every question being compulsory. There are usually no elaborate directions. The following is a typical example of directions given to candidates ;

Geography

Time 3 hours

Full Marks -100

Pass Marks - 30

The questions are of equal marks.

Candidates are required to give their answers in their own words as far as practicable.

3.4.3. Construction of Question Papers : - The question paper is constructed by an experienced teacher of the same or a higher class Examination agencies send the syllabus and the question papers set in the last 2-3 years in the examination to the Paper Setter. The Paper Setter is required to set the question paper in such a way that none of the questions is out of the syllabus and the expected difficulties of the questions and the format of the question paper remain the same as in the previous years. Some examination agencies provide a blue print (i. e. a statement of the weightages to be given to different educational objectives and different aspects of the syllabus) to the Paper Setter. After the paper is set, it is moderated by a Moderation Board, who have the power to improve or change questions as they like. The members

of the Moderation Board are experienced teachers of the Paper Setters' status.

3.4.4 Evaluation of scripts - Examination scripts are evaluated by external examiners (i.e. who are not the candidate's teachers or relatives) who have considerable experience of teaching the subject in that or a higher class. To minimise the possibility of any extraneous influence being exerted on the examiners several precautions are taken. Examiner's identity is kept secret. The examining agencies keep examiner's names strictly confidential; and the examiners themselves do not disclose to any one the fact of their being examiner. Secondly, scripts are sent to examiners stationed far off from the candidate's examination centre. In each paper there is a Head Examiner, who is usually the Paper setter himself. The main job of the Head Examiner is to determine how the questions are to be marked. When the number of scripts is so small that all can be marked by one examiner, the Head examiner examines them all. But if the number is large enough to require the engagement of more examiners, some Assistant Examiners are appointed to work under him. For a still larger number of scripts, there is the Head Examiner assisted by several Deputy Head Examiners; who in their turn, are assisted by several Assistant Examiners. The Head Examiner issues marking instructions to the Deputy Head Examiners, and the Deputy Head Examiners to their Assistant Examiners. In fact, what the Deputy Head Examiners issue are a replica of the instructions received from the Head Examiner with some additional points to which they would like to draw the attention of their Assistants. The note of instructions is considered a confidential document and is to be returned to the examination agency after the scripts have been marked. During the course of marking, the Head Examiner sends sample of scripts marked by him to the Deputy Head Examiners for their guidance and examines some scripts marked by them to ensure that they are properly following his instructions and their marking standards are uniform. The same practice is adopted by the Deputy Head Examiners in respect of their Assistant Examiners. The Deputy

Head Examiners have the power to moderate the marks of their junior colleagues. After the scripts have been marked, a mark-sheet of candidates is prepared. The Mark-Sheets are submitted to the Deputy Head Examiners by their Assistant Examiners for onward transmission to the Head Examiner. After the Head Examiner has approved the Mark-Sheet, marks become final, and no Educational or Judicial Authority can change the marks. There are, however, systems of scrutiny and re-evaluation of scripts which may lead to the change of a candidate's marks. We shall come to this point later (See 3.4.11 and 3.4.13).

3.4.5 Centralised Evaluation : - Some Examining Bodies have a practice of asking all the examiners to mark the scripts at one central place, if it can be managed so, under the supervision of the Head Examiner, or alternatively at several places under the supervisions of the respective Deputy Head Examiners. This method is called "Centralised Evaluation" as evaluation is done centrally. The supposed advantages of this scheme are that any point of order can be discussed among the Assistant Examiners (which is not possible when Assistant Examiners work at their respective residences) and the communication between the Assistant Examiners and their Supervisors is quick and clear. This saves time in the evaluation of scripts and is supposed to improve marking accuracy.

3.4.6 Scaling : - By scaling is meant the transformation of mark distribution produced by an examiner to a common distribution. Many examination agencies accept in principle the desirability of using scaling in the examination, they are however not yet prepared to incorporate it in their examination system for the reasons of public confidence. It is often felt that scaling may lead to a change of marks awarded by examiners which may likely be construed by some people as tampering with marks and may shake public confidence in examination. Whatever be the strengths of such arguments, the fact remains that virtually no secondary board uses mark

scaling. Amongst the Universities and institutions of higher learning, Gauhati University and some I. I. T's. use some sort of scaling. Many Secondary Boards and Universities are however planning to introduce grading system in their examination. When it is done, the need of scaling may not be so pressing.

3.4.7. *Tabulation of results* :—Most Examining agencies tabulate results by employing teachers for the purpose. We have not yet started using mechanical aid for such purpose to any appreciable extent. Some agencies feel that there is no point in going for automation when there is no paucity of man power and things can be got done reasonably fast and accurately.

3.4.8. *Grace Marks* :—That examination marks are subject to errors, is recognised by every examination agency and therefore they all have some arrangements to reduce the chances of failure of a pass-deserving candidate due to mark errors. Of course, the practices followed are not very systematic and scientific and most of them seek their justification in compassion rather than justice. The award of grace marks is one such practice. In this scheme a candidate who does otherwise well but fails by a narrow margin in some papers is given some additional marks in those papers by the examining body to enable him to pass the examination. These marks are called "Grace Marks". The grace marks, however, do not count in determining a candidate's rank or division in the examination. (We shall discuss the concept of division later, see 3.4.9). In fact, the candidate for whom merit order is maintained, i.e. the top few per cents, almost never require grace marks to pass the examination. The rules for the award of grace marks are worked out by each examination agency every year. These vary from year to year for an agency, and from one agency to another.

3.4.9 *Pass And Division* :—The requirements for passing an examination vary from one agency to another. There are agencies which demand as high as 60% marks while other as low as 30% marks in each of the papers for passing an

examination. The candidates who pass examination are classified into 'divisions' or 'classes' on the basis of their total marks in all the papers. The percentages of total marks required to get a 'divisions' or 'class' vary from agency to agency, and from examination to examination. The following, however, may be considered the most prevalent practice.

75% and above	Distinction
60% to less than 75%	First Class
45% to less than 60%	Second Class
33% to less than 45%	Third Class
Less than 33%	Fail

3.4.10. *Failure in Examination* :—We in India probably have the highest number of failures in examinations. The failure rates vary from around 40% to more than 70%. There has been a lot of debate on how to get rid of this infirmity which dogs our examination system to day. We shall come to this point later while discussing our present thinking about examinations.

3.4.11. *Scrutiny of Scripts* :—Each examination agency has a practice of scrutinising some scripts selected at random to see whether the scripts have been marked properly. In the scrutiny, only two major points are examined :

1. Whether all the answers written in the scripts have been marked ?
2. Whether the marks awarded on different questions have been properly totalled ?

In case there is any error in respect of the two points it is rectified by getting unmarked answer marked by an Examiner and by correcting the total. It must be emphasised here that the scrutiny does not mean an assessment of the marking accuracy of the examiner. If an examiner has given zero mark on the answer which the scrutiniser considers perfectly correct, the later has no power to change it.

Since the examination agencies do not scrutinise all the scripts of the examination in a routine manner, they have a

provision for the scrutiny of the answer scripts on the application by the candidate. There is a time limit fixed for such applications so that the scrutiny of scripts and the resultant changes in the examination results do not become an eternal process. Some fee is invariably prescribed for applications for scrutiny to ensure that only genuine applications are made.

3.4.12 *Penalty to Examiners :* Examiners found in default are usually debarred from Examinership for a stipulated period. Monetary penalty is seldom levied

3.4.13 *Re-evaluation of Scripts :* Concern has been expressed in several quarters about the magnitude of subjectivity in essay test marking, brought out by studies done in India and abroad. To mitigate this problem, of late, several examination agencies have introduced a system of re-evaluation of scripts. The procedure of re-evaluation is that the candidate makes an application for it and deposits the required fee. Then, the script is sent to another examiner after removing the traces of the first marking so that the second examiner has no idea of the marks given to different answers by the first examiner. The methods of dealing with the marks awarded by the two examiners involved in the re-evaluation vary. Some agencies give the average of the two marks if the difference between the marks is within a specified limit, otherwise, the script is referred to a third examiner and the average of the two closes marks is awarded to the candidate. Some test agencies give the average mark of the two examiners to the candidate whatever the magnitude of the difference between the two marks, and some give the marks of the second examiner provided the difference between the two marks is beyond a specified limit, and the second marks is to the advantage of the candidate.

3.4.14 *Supplementary Examinations :* For such candidate, who fail the examination by a narrow margin and could not be made to pass by award of grace marks (see 3.4.8), a supplementary examination is arranged within a month or

so from the date of the publication of the examination results. The candidates eligible for the supplementary examination appear only in those papers in which they had failed, and after they pass in these papers they are declared successful. The difference between the supplementary and the annual examinations is that while in the former the candidate is required to sit for only those papers in which he had failed, in the latter he is to sit for all the papers, i. e. including those in which he had passed. Besides, a successful candidate in the supplementary examinations does not lose a complete year, as after passing the examination he gets admission to the next higher class during the same academic session. There is yet another difference. Many examination agencies do not award a division to the candidate who passes the supplementary examination, only 'Pass' is shown in his certificate.

3.5 Semester System :—These examinations have the basic characteristics of both external and internal examinations as around fifty percent of the paper setters and examiners are external and the remaining internal.

Some Universities have introduced the Semester System i.e. the academic session is divided into semesters, for each semester a course is prescribed, and the students are examined on this at the end of the semester. All the candidates are allowed to proceed to the next semester course irrespective of either they had passed in all the papers or not in the previous semester. Those who fail in some papers, called 'Back Papers', are required to appear in these papers again. A difference between the traditional annual examination and the semester system is that while in the former there is only one examination in the year in the latter there are two. Again, in the former a failed candidate has to appear in all the papers including those in which he had already passed ; in the latter, he has to appear only in 'back papers'. There are many strong points in the favour of the semester system. For example, the candidate's work load is evenly distributed throughout the year, the

quantum of work completed during the year is more, and the failure rates are reduced to negligible because candidates keep on attempting till all the back papers are cleared. In traditional annual examinations this is not possible, because the candidate have to reappear for all the papers and not only in those in which he failed. It often happens that a candidate on reappearing in the examination, passes in the paper he had failed but fails in some other. This way many candidates are never able to pass the examination and leave education. But due to certain administrative difficulties and paucity of resources, the semester system could not get much success in the country inspite of its obvious advantages. Arrangements for teaching 'back papers' of the students without any clash with the teaching of their other papers involves a large number of teachers and calls for more seating accommodation which many universities cannot afford. Similarly, the marking of scripts at the close of semester system by external examiners takes too much time resulting in inordinate delay in the publication of results. Consequently, some agencies which had already introduced the system are retracing their steps while some others are willing to experiment with it. In short, the semester system in the country is only at an experimental stage.

3.6 *Admissions* :—Marks awarded in the preceding examinations are generally taken as the criterion for admission to the next higher class. For example, the admission to the University courses are usually made on the basis of the candidate's marks at the secondary examination. Dissatisfaction is often expressed with this criterion because the purpose of the secondary education is not to solely prepare for higher education and therefore secondary examination marks alone should not be taken to judge competence to join higher education. But no alternative to this criterion seems to have emerged so far. There are a few exceptions e. g. the technical and professional institutions, where aptitude tests are used for admission of candidates to the institution.

It may be reiterated that there is hardly anything that can said to be applicable to all the examinations held in India. What has been said above should, therefore, be considered as the normal or general practices obtaining here.

4. *Agencies active in Examination reform* :—Obviously, much can be said against our present examination practices and in fact some of the drawbacks of these are well realized in the country. Accordingly, several agencies have become active in the field of examination reform. The major jobs of these agencies have been to systematically investigate the various aspects of examinations, suggest better methods of doing things and train personnel to the construction and use of improved methods. Of the agencies active in the field of examination reform at secondary school level the most important are National Council of Educational Research and Training, New Delhi; Evaluation Units of State Secondary Boards; Regional Colleges of Education; Council for the Indian School Certificate Examination; and Central School Organisation. At higher education level the important ones are University Grants Commission, Association of Indian Universities, and Bureau of Educational Research, Allahabad.

In addition many research workers have been carrying on researches on problems of examinations. This had led to the dissemination of knowledge about examinations and suggestions to improve them. Important suggestions made in the country for improvement of examinations are the following : —

5. Suggestions for Examination Reform

5.1 *Curriculum Improvement* :—It is generally recognised that there is no coordination between the purpose of examination and the objective of education in India. The objectives of education need to be improved and made clearer so that they cater to the needs of different types of students—those who will enter life, enter technical education, or enter higher education. Another major point on which dissatisfaction has often been expressed is the objective of teaching the

English language. It is felt that the basic fact that English is a second language to an overwhelming majority of students and most of the students may not have to use the English language to any appreciable extent in actual life is often ignored.

5.2 *Improvement in Question Paper* :—Different suggestions have been made in this regard. Some people of the old generation advocate that properly marked traditional type of questions may even today give rich dividends. Others feel that in a large scale examination traditional essay type questions should not be used and only objective type tests should be given. Thus we have people having contradictory views, nevertheless the majority seems to agree that even if we use essay type questions, there is much scope for improving them. For instance, essay questions can be made more specific and directions could be given to the candidates on what particular aspects will be looked into by the examiners while evaluating the answer. For use of short answer and structured questions there is practically consensus. Another suggestion is that the language of the question paper should be easy and simple so that the candidate is not penalised for poor comprehension of the question. These people do not favour the practice of asking questions in English in subjects taught through other languages.

5.3 *Question Bank* :—A major suggestion to improve questions often put forward is the development of a question bank. Since this is a new idea in this country, it needs to be elaborated a little more. The first step in developing a question bank is that syllabus is prepared by a small number of people and the objectives of instructions are formulated clearly. Then, the detailed syllabus is circulated to all the teachers teaching the course and they are invited to frame questions on every topics. All these questions will be sent to the test agency where they may be scrutinised by a small Committee set up for the purpose. The question could be tested in actual class room setting to find out their difficulty

and discrimination values. Then, suitable questions are deposited in the Bank. Thus the construction of examination questions is not a work to be done once a while in an academic year. On the contrary, it is a continuing process where a large number of teachers participate. Some people are of the opinion that even guardians and the students should be encouraged to frame questions, because after all, all the questions are going to be scrutinised by a competent Committee. After questions have so been collected they could be selected by the Paper Setter or the Controller of Examinations subjectively or by some mechanical method to form the question paper. The questions in the bank will be reviewed regularly and out-dated questions would be weeded out. The advantages of this scheme are that this ensures out the co-operation and goodwill of almost all those engaged in teaching and learning process; the questions used in the examinations will be selected ones and, therefore, their efficiency will not be a matter of chance; even the writers of the questions will not know which questions are to be asked in the examination so that question paper will be more secret. In the present practice, almost two or three persons know what questions are going to be asked, i. e. the Paper Setter, the Moderator and the Controller of Examinations. In the suggested method only Controller of Examinations will know the actual questions. Another advantage is that the question paper can be constructed on a very short notice because all that has to be done is to take out questions from the bank. Obviously, the construction of questions is a more time consuming process than the selection of questions. And lastly, since difficulty and discrimination values of the items will be known, a test of required specifications could be built up, and, if needed, parallel forms of tests could be compiled, which is not possible now.

5.4. Improvement in Marking Accuracy :—For this, important suggestions are the provision of lesser answer scripts to examiners, and allotment of more time for evaluating scripts,

so that they may not have to work in hurry. Providing model answers and detailed marking instructions to the examiners, evaluation, double independent marking of the scripts, and scaling of marks, are other major suggestions.

5.5. *Minimising the Failure Rates* :—This is probably the most difficult of our problems. The present failure rates are somewhat between 40 to 70 per cent. Some feel that standards of education are falling down and to arrest them it is essential that only those candidates be allowed to pass who come up to a certain level. If a large number of candidates fail, only they are to blame. Others, on the other hand, feel that any level of excellence which around 70% of the candidates are not able to achieve, is unrealistic. Failures indicate that the candidate has not achieved what is expected of almost everyone and, therefore, pass should be the rule and failure an exception.

5.6. *Passing Probability* :—A suggestion is made that instead of giving grace marks to candidates, we calculate the passing probability of each candidate and those whose probability is above a specified level should be allowed to pass.

5.7. *Change in the Basis of Awarding Division* :—Some educationalists are of the view that instead of fixing the minimum limit for obtaining various divisions and pass in advance of examination, these should be fixed after the marks are tabulated, so that the difficulty of the examination is taken into account in determining these limits.

5.8 *Weightage to internal Assessment* :—Some people have suggested that giving due weightage to the candidate's internal assessment which is carried out throughout the year and by the teachers who know him intimately will improve reliability and validity of marks. There are others who are averse to giving any weightage at all to internal assessment. They feel that internal assessment cannot be relied upon because various factors other than the merit of candidate influence it. Besides,

marks awarded in internal assessment are often inflated. Nevertheless, the majority is gradually rallying round the opinion that in the long run our policy should be to switch over completely to the internal assessment, because external examinations have a 'baneful' affect on the entire teaching - learning process.

5.9 Grading:—Consensus is growing towards the use of grades instead of marks. Fortunately, all the protagonists of grading favour a seven point grading

5.10 National Examination:—Since the number of examining bodies has increased in the country and their educational standards vary, it is felt that there should be a system of national examinations to provide uniform yardstick for the assessment of merits of candidates passing equivalent examinations from different examining bodies. Admission to national examinations should be voluntary.

5.11 Opportunity to improve the Candidate's Division:—Till now only those candidates who fail in an examination are allowed to reappear in it, those who pass the examination are not allowed to do so. It is now being felt that the candidates, who want to improve their divisions by reappearing in the examination should be allowed some chance. There is yet no consensus of how many chances a candidate should be given to improve his division. All, however, agree that there should be a limit to the number of such chances. These are in short the major lines of thinking in India today on the measures of examination improvement.

To quote the Education Commission : "This (examination reform) is one of those areas in education about which one can say that the problem is known, its significance is realised, the broad lines of solution at least to begin with are known, but for some reason or other an effort to implement it on any worthwhile scale or in a meaningful manner has not yet been made."

6. Efforts for the Implementation of improved Methods:—To make examination reform movement factor, the examination

work has been made more or less non-remunerative so that no vested interests obstruct the reform. The N. C. E. R. T. has organised several paper setter's workshops, seminars, and conferences of Primary and Secondary School teachers. The Association of Christian Higher Education has organised several workshops for training their teachers in test construction and item analysis. University Grants Commission have selected

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several universities in India for financing them to implement improved methods of examination reforms. A redeeming feature which is likely to accelerate the pace of examination reform in the country is the improvement in techniques of examinations conducted by the Union Public Service Commission. The Commission conduct large scale examinations for the recruitment of candidates for Union Government posts. These examinations are considered prestigious. To compete in these examinations is a cherished goal for the majority of the bright candidates in the country. People generally rate educational institutions according to the performances of their students in the U. P. S. C. competitions. When the examination techniques of the U. P. S. C. change it will have an all India impact on all levels of education right from the Secondary to Post graduate levels, and it is very likely that most examining bodies in the country will follow the trail blazoned by the U. P. S. C.

Before we conclude it may be useful to delineate major trends in examination reform.

General Trends

1. There is a growing realisation of the fact that examination marks suffer from errors of measurement in contrast to the previous thinking that marks are error-free.

2. The concept of examination is giving way to the concept of evaluation.

3. From the testing of academic achievement, the emphasis is gradually shifting towards the evaluation of both academic and non-academic achievements.

4. There is growing emphasis on the formulation of educational objectives for different courses and the adoption of a variety of testing techniques to evaluate candidate's achievements of these objectives.

5. The examination results of the candidates are being put to a variety of uses (like diagnosis, remedial teaching, guidance and improvement of teaching methods and instructional materials) rather than to only one as in the past i.e. marking academic achievement.

Written Examinations

1. The trend is to give more emphasis on the examination of the candidate's higher mental abilities, skills, rather than his knowledge.

2. In the question paper attempts are being made to cover the syllabus as adequately as possible, so that one cannot get a good mark by ignoring a significant part of the syllabus. The overall optionals are, therefore, gradually being discarded.

3. There is an increasing tendency toward more use of structured, short answer, and objective questions.

4. Attempts are being made progressively towards achieving more and more clarity in marking instructions to examiners.

5. Several agencies are developing question Banks.

6. Internal assessment is gradually being made more comprehensive and more weightages are being allowed to it in assessing a candidate's performance.

7. In lieu of marks and divisions, there is a tendency toward a seven-point grade.

8. So far, there is no common yardstick to compare the achievements of students passing equivalent examinations. In the near future some national examinations are likely to be started to do this job.

Recently, the U.G.C. has published a note entitled "Examination Reform —A Plan Of Action". The general principles of the plan are given below.

Examinations must become "internal", and an integral part of teaching process.

Sessional assessment which purports to measure a number of important abilities viz., drive and capacity for hard work, motivation, quality of imagination, intuition and speculation, leadership and teamwork, skilled use of hands etc. must be shown on the grade sheet separately.

Every university and college has to maintain and defend its own standard.

If the award for a degree or diploma or examination depends on the performance of a student in a number of courses, these courses should not be linked with one another, so that a particular course may not be penalised in other courses due to this failure.

The system of the so-called "final" examinations should be replaced by assessments over well distributed intervals.

The present practice of assigning marks which implies a 101 point scale of marking together with its arbitrary minimum for a first, second or pass class should be substituted by a grade system indicating a five point scale.

For service or a course of study distinction should be made in the devices used for measuring input characteristics such as aptitude, attitude and interest etc. and output characteristics i.e., terminal performance such as achievement, motivation and abilities.

For obtaining a national index of performance and achievement a National Examination in various subjects at the bachelor's level must be conducted in all the regional languages and English by a central authority on a purely voluntary basis.

In order to provide equality of educational opportunity, correspondence courses should be widely organised for further study to those who fail to gain admission to any institution.

It should be obligatory for all colleges and universities to supply to the U.G.C. complete information about examination papers and question banks.

Conclusion

This is in short a brief discussion of the current practices, thinkings and trends in India about examinations. We have done much to improve our practices, but much more still remains to be done. Education is supposed to help one develop his strengths and overcome weaknesses to the fullest possible extent, and examination to indicate to what extent this has happened. This is not possible by giving only marks which in the majority of cases doom people to frustration and ruin their future prospects. In fact the entire tools and techniques of examinations and people's outlook about them have to be changed if examinations are to serve their avowed purpose of helping people rather than harming them. This is a difficult goal and may be reached with the concerted efforts of all engaged in educational reconstruction. We only hope in future we shall be nearer this goal than we are today.

EXAMINATION REFORM

Dr. ARUN KUMAR GUPTA

Examinations have come to stay as a necessary evil in our system of education mainly because we have failed to take full advantage from them in educational areas where they could be of maximum use. Why should examinations be improved ; what are the different purposes which examinations should serve : what is, and should be, the place of other tools of assessment like essay tests, viva voce, open book examinations etc. in our evaluation machinery ; what are the new directions and trends in the field of examinations and what are their implications ; these and allied questions have often been raised and discussed in the past. If these issues are being raised again in the present paper, it is so because I am convinced that there is still scope for saying something useful regarding these especially in the light of some of our recent experiences and researches.

Why Examinations ?

To a layman, as indeed to many teachers, I am sure, examinations are the tools whereby students' achievement is measured and, on the basis of which, they are certified as having attained a particular level of achievement. Even though, this happens to be a very important function of examinations yet this is not the sole function. There are some other pur-

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1. The author is highly grateful to the Director, Model Institute of Education and Research, Jammu for granting permission to reproduce some portions in the present paper from the Institute's recent publication. Examination Reforms : Directions : Research and Implications edited by A. K. Gupta (Sterling Publishers, Delhi)

He is also thankful to Sh. Suresh Sharma, Research Officer, MIER for help in preparing the section on grading.

2. Director, Research, Model Institute of Education and Research.

poses also which are quite important, e.g., the examinations serve the diagnostic purpose. By this is meant that the examinations provide important guidelines to the students, the teachers and to the curriculum constructors and the administrators to diagnose their strengths and weaknesses. The second important purpose of the examinations is the prognostic purpose which means that the examinations predict a student's chances of success in some specific job. Thirdly, the examinations serve the motivational purpose, i.e., they motivate the students and the teachers to make the best use of their abilities. Lastly, the purpose of examinations is to provide a basis on which the students can be guided in the choice of their curricula or their professions. Unfortunately, examinations in India serve only one purpose that of assisting the examining bodies in the process of certification and have become an end in themselves. It is important, therefore, that before we talk of any examination reform we should cease to look upon the examinations with a myopic eye and should recognize and understand other important purposes which any properly geared system of examination can serve.

Need for Reform

It is further unfortunate that the role purpose which our examinations are serving at the moment, is also not being served properly. Consequently, the examinations, as they exist today, have come under sharp criticism from all quarters. I would not dwell on the philosophical, sociological, psychological and economical issues which necessitate examination reforms at different levels but I would definitely like to throw some light on the vagaries of the present examination system as have been revealed in a host of a research studies conducted in India and in other countries. These can be summarized as under :

1. The results of secondary school leaving examination of one year are not comparable with the results in other years in respect of both means and variance.

The quality of such examinations, however good or poor they may have been, varies from year to year.

2. Question papers set in external examinations do not contain a representative sample from the syllabus.
3. The reliability of the public examinations is very poor. Able students frequently receive low marks in such examinations. Similarly, students of equal ability receive widely different marks.
4. The nature of question paper is questionable. Studies have shown that while students, given option to select questions for themselves, have a general tendency to select questions which they can answer best, they do not always make wiser choices.
5. Students have been found to be better judges of the difficulty of questions than are their teachers.

However, students select typical questions too easy for most of them. It has also been shown that a question paper which requires students to answer five out of nine questions can be considered a fair test for only 135 of 1,000 students.¹

6. Students can safely ignore parts of a syllabus without hunting their chances of securing high marks.
7. The use of mother-tongue as a medium helps students to secure a higher percentage of marks in all the subjects except mathematics in which case English helps them to get better scores.
8. The instructions issued to the paper setters and markers differ from subject to subject and are a major source of variations and, hence, error in the examination results.
9. Examiner's reliability is very low in public examinations. Outstanding researches, by Dr. Taylor, have shown that examiners differ very widely. Cases were shown when two examiners in the same zone passed different number of examinees in the same subject.

While one passed 96% of them, the other passed just 11%. It was also shown that out of 90 examiners (who were all experienced and recognised by the Board) one gave distinction to an examinee, 8 gave him 1st Class, 41 a 2nd Class, 33 a 3rd Class, while 7 failed him.

10. Contrary to expectations difference in median marks in mathematics allotted to the same person by different examiners have been found to be higher than in other subjects.
11. While marking papers, the examiners seldom use the full range of marks. Though 100 marks are allotted to a paper, this does not give a range of 100 in the scoring. Frequently, the highest marks assigned to any paper, is 80 or 85 and the lowest is 15 or 20. Thus, the range is 60 or 70 instead of a possible 100.
12. Subjects in which a wide range of marks is used carry more weight than those in which the range is narrow. Thus, it is possible that a 100 mark subject does more than a 200 mark subject to determine the final standing of students.
13. Different scales of marks for different parts of the same paper exist in question papers. For example, students are asked to attempt grammar in which there is greater possibility of getting full marks than in rest of the English paper.
14. Marking is not done on the same scale. Hence their comparability is out of the question. It was shown in a university examination that a score of 64 in Biology was equivalent to a score of 82 in Mathematics, while 28 in Biology was equal to 17 in Mathematics.
15. The system of grace marks has been found to be unsound statistically.
16. A major limitation of the scoring procedures is the presence of 'J' effect in scoring whereby many students cluster at the pass-fail border mark.

17. More than one right way of answering the same question paper are present. In one study Gayen and associates found that a paper could be answered correctly in 256 different ways.
18. The prognostic value of examinations is very limited. Hence the efficiency of examinations in selecting pupils for higher stage is controversial.
19. Many question papers do not measure the abilities which they profess to measure. For example, Mathematics question papers, when analysed, are usually found to assess mechanical drilling rather than arithmetical abilities.
20. As compared to science subject, the existing types of examinations is a poorer measuring instrument in arts subjects.
21. The nature of relationships between the internal assessment scores and the scores in external examinations, varies from subject to subject. It is of moderate value, is not stable and it also varies from one institution to another.
22. Various intellectual and non-intellectual factors affect performance of students in examinations to varying degrees. Intelligence, socio-economic status, health and well-being of students, participation in curricular activities, caste, personality make-up and creativity have been studied in relation to achievement and have been found to influence the latter.
23. There is a significant failure rates in examination. Usually this varies from being 20% to 80%. This is attributed to many factors like distribution of the time table, work-load of teachers, correct work aids and appliances used, increase in number and hence pupil teacher ratio and number of examinations held in the session.

These results are an eye-opener for everybody and press home the urgent need for examination reform. However, examination reform like any other reform, is more easily said than done. There are so many stumbling blocks in the path and it will not be out of point to briefly touch upon and identify hurdles in our path so that efforts may be directed to clear them side by side.

Stumbling Blocks

Unfortunately, the main obstacle in the path of implementation of schemes for examination reform has been posed by the body of teachers and educational authorities themselves — those people who should have been its propagators. This fact has been painstakingly pointed out in the latest University Grants Commission's publication on examination reform also. Partly due to their vested interests whereby they have an alternate source of income or because no alternative system has been clearly spelled out before them and partly because they are not conscious of the subjectivity unreliability, lack of validity of the examinations as conducted today, our teachers fail to realize, says the booklet, 'that examinations of the present type undermine basic educational objectivity'.

The second argument is directed against the agencies like universities, etc., which could have enforced examination reform for their 'lack of will' in using authority, advice and legal privilege to bring about a change and for fearing 'de-valuation' of their prestigious degrees if once they made radical changes in the system

To these, we can add the following factors :

Ignorance : Teachers, in general, know about the defects of the present examination system but lack scientific knowledge of the same. The reason for this ignorance and lack of interest can be traced to shortage of time, money, material and motivation. For example, the distinction between measurement and evaluation—so fundamental to all reforms in examination is not clear to most of our teachers.

Inertia The teacher community is mostly tradition bound for which the past is glorious. They are inclined to teach what they were taught and in the manner in which they were taught. Similarly, they want to examine and evaluate the students in the manner in which they themselves had been examined and evaluated. This inertia to change is not always a result of intellectual slovenliness but it may also be a product of an academic discipline cultivated over the years. As a result of this, they neither want to experiment nor try to recognise the work of others.

Inhibition : Even if some teachers genuinely feel the inadequacy of a particular practice or tradition, they do not come openly in the field for the fear of organized criticism and conflict with authorities. This happens to be the chief reason why reforms in examinations in our country have invariably been imposed from the top rather than coming naturally from the voluntary efforts of the teachers.

Other Obstacles

(a) Lack of encouragement and recognition :

Reforming examination is a laborious and time-consuming endeavour, for which only a selected few have the patience and zeal. Even those who try to do something in this field get neither encouragement nor recognition.

(b) Opposition from colleagues :

This is mostly due to petty jealousies and is motivated by the fear of exposures of one's incompetence and shortcomings. People in general want to hide their ignorance, incompetence and want security so they try to demoralize others who can do something.

(c) Opposition from examinees :

It is strange but true that examinees themselves are not much in favour of examination reform. They consider any plan to improve examination as a move from the top to enforce more strictness and shirk from the thoughts of doing more

hardwork for little gains. No wonder then all moves for an examination reform are met with great opposition from students in the programmes of examination reform in the real sense.

(d) It has been aptly pointed out that 'the nature of reforms, proposed from time to time, in itself has impeded progress in the direction of reforms. In spite of honest intentions the measures that were taken as a follow-up of Radha Krishnan Commission reflected 'casual attitudes, mudding through an amateurish level'. These measures were hastily conceived, piecemeal, and were of the nature of palliatives and served as negative reinforcer for further work.

Main Trends

Lest what has been said in the preceding sections should breed a spirit of pessimism among the readers, I should hasten to add that after independence there have been some definite and indefinite trends in the direction of improving examinations. For this, we should thank agencies like the Ministry of Education, the various State Governments, the University Grants Commission, the Inter-Board of India and Ceylon or the I. B. U. and the National Council of Educational Research and Training which have done a yeoman's service by initiating some steps for the improvement of examinations. The overall trends in examination reform in India can be summarised as under :

1. The concept of measurement in examinations has been replaced by the concept of evaluation. These days it is customary to talk of evaluating a pupil's performance rather than measuring his performance.
2. Instead of adopting any arbitrary criterion now evaluation is gradually being made more systematic with clear-cut objectives.
3. Instead of evaluating merely academic achievement of the pupil, there is a general consensus that pupil's

growth should be evaluated in both academic as well as in non-academic areas.

4. Rather than restricting evaluation after a particular period or a term, now we talk about continuous evaluation.
5. Instead of restricting ourselves only to the essay-type examinations or some other techniques, now the use of variety of techniques for the purpose of pupil evaluation is emphasized.
6. Instead of using the test results for a limited use i. e , certification, etc., now there are wider uses for examination in line with the different purposes of examinations mentioned earlier is advocated.
7. Improvement of achievement rather than the measurement of achievement is considered to be more important function of examinations to-day
8. The examinations are today considered to be an integral part of the education process, hence we do not talk of testing pupils in isolation or seclusion
9. Lastly, there is a general trend whereby instead of describing a pupil's performance in terms of marks, the use of grading system is recommended

Different Evaluating Techniques and Devices

Essay-Type Test . An average Indian teacher whether he is teaching in a school, college or a university relies solely upon the essay-type test to evaluate his pupils. In this type of tests the student is given freedom to formulate his answers in the way he likes or thinks. There is nothing wrong with the essay-type test and, in fact there are certain areas of learning for measuring the achievement of which essay-type tests are usually considered to be uniquely constituted. Form and flavour of language, creation of new ideas, evaluating the ideas of others and synthesis of ideas drawn from different fields are examples of such learning areas. Therefore, these

tests are an important constituent in the arsenal of a teacher. However, essay-type tests have been bitterly criticized in our country for different reasons. For example, it has been complained that such tests encourage and measure cramming, that they have reduced teaching to coaching and learning to drilling. Further, it is alleged that they allow subjectivity in determining the scope and content of the answer. The same answer may be considered excellent by one examiner and very poor by another. However, most of the defects in an essay type examination can be minimized, if not removed, provided :

1. The use of essay-type questions should be restricted for the measurement of those objectives only (mentioned earlier) for which they are adequately constituted.
2. By framing the questions in a simple, lucid and straight-forward manner and by utilising the improved method of question framing so that there is no room for difference in the interpretation as to what should and what should not constitute the answer ; and by allotting weightage to the different aspects of the answer. There is no harm in lengthening the question if it makes it clear. It should be emphasized that a test can remain very much an essay-type test without offering options or choice. Options have been criticized on different grounds.
 - (a) Candidate who is expected to answer questions is also required to select them in a hurry which results in the loss of time.
 - (b) In the strain of examinations the students may not make wise selection and thus lower down their marks.

In fact, there are some indications to suggest that bright students tend to select challenging questions and get penalized.

- (c) The theory of optional questions indicates a failure of educationists to agree in what is indispensable to the students.
- (d) Optional questions encourage the optional study. Research studies show that a student may ignore 70 to 90% of the course and yet be classified as the first class.
- (e) Optional questions remove the very basis for comparing the performance of different students since all the students do not answer the same set of questions.

Also, it should be possible to bring in comparability in the marks on an essay-type test by resorting to scaling or the process of equating marks for comparability. These statistical exercises lie outside the scope of the present paper. I have firm belief that if the teachers do not solely rely upon the essay-type examinations but use other evaluation techniques as well along with the essay-type, they would be rendering a service not only to the pupils but also to themselves. The following are some of the other types of evaluation techniques which the teachers can use : (a) Short answer questions (b) One-word answer questions ; (c) Objective type questions ; (d) Practical examinations ; (e) Oral examinations ; (f) Evaluation of project reports and dissertation and (g) Open-book examinations. In addition to these, the internal assessments based on periodical tests and sessional assignments, are also two other very important tools for pupil evaluation.

Short-Answer Questions : These are those questions where the students are required to write their answers in a few words or sentences. There are some test experts who hold that there is no evidence to suggest that what can be tested by essay-type test cannot be tested by the short-answer questions, because in the tests, the students are given the freedom to select, organise and express their ideas. I personally favour these type of questions over the conventional essay-type because of the following reasons :

- (i) A much larger number of short answer questions can be used in the specified time.

- (ii) Marking in such questions is less subjective because the answer expected belongs to a particular content domain and this improves reliability in marking. Studies have shown that there are more chances of an untrained teacher to frame a good short answer-type question than a conventional essay-type question. Lastly, such type of questions are less time and labour-consuming both for the administrator as well as for the evaluator.

One-Word Answer Questions : One-word answer questions are those where the answer can be given in one word which has to be supplied by the pupil. The potential of these questions in assessing the student's achievement, especially in everyday classroom situations, is widely recognized but these questions require some preparation by the teacher. Otherwise, the introduction of such questions, without adequate preparation, may not lead to desired results or even may worsen the situation.

Objective-type Questions : Objective questions are those where no subjectivity is involved in marking the answers and the marking is objective. Usually, an objective question provides several answers of which only one is the correct answer. An objective test gives a much wider course coverage than is done by other types of questions and marking of these is accurate, cheap, and easy even though the construction and administration of these require a professional skill.

Practical Examinations

In the field of sciences especially, practical tests, if properly handled, can provide valuable information on the acquisition of the manipulative skills on the part of the students. It has been alleged that evaluating a pupil's performance on the basis of one or two practicals in the annual examinations is an unsound principle and that the student's performance throughout the year should be taken into consideration.

Oral Examinations

The oral examination or viva voce provides a unique opportunity for the examiners and the examinees to follow each other's thinking process. The examiners can ask and, if necessary, revise and frame the questions so as to convey the desired meaning to the examinee. Thus, weaknesses, in questioning, are removed and supplementary questions can be put to assess a student's intensive and extensive learning. In oral answers, the student is also in an advantageous position. Firstly, he can seek clarification from the examiner of equivocal questions. Secondly, he can frame the answer to the question for the satisfaction of the examiner, once he understands the line of thinking. In fact, several educationists, especially those in the developed countries, considered oral examination as the most reliable and valid instrument for measuring the student's learning. However, there are some limitations also. The marks of a student are affected by halo effect. Thus, his personality or his earlier impressions and competence, may affect a pupil's marks. Secondly, an oral test is valid only if there is a considerable rapport between the examiner and the examinee. Nervous, and shy students have a high probability of being underrated and, lastly, the marking is subjective. However, there is much to commend in the oral examinations. Since they can be given in the every-day classroom situations by the teachers. I am confident that much improvement can be brought in the teacher-pupil relationship.

Open-Book Examinations

Open-book examinations have been a much talked about subject for the last few years. Even though they may not admit openly, yet all teachers would bear me out, that the examinations in our State till last year were all open-book type where the students had free access to books and other literature for answering the questions. I would like to point out that partial open-book examinations have been and are being employed at various stages and in different subjects even

in our educational setting e. g., in mathematics and statistics students are allowed the use of the tables of logarithms and trigonometric functions ; in history pupils are allowed to refer maps and charts, and in law classes, some Acts are allowed to the students for reference. The main idea behind the open-book examinations is to eliminate the basic difference in content that usually enters with an examinee answer from pure recall. Advocates of open-book examination also emphasize their role in motivating pupils to understand and apply their knowledge rather than fill it indiscretely in their brains only to vomit out facts during the examination and forget the rest afterwards. Researches, conducted by Tussing, Kalish, Fieldhusen and some studies conducted at the Model Institute of Education and Research have shown that such examinations can be constructed and used in all subjects, that they remove fear and emotional blockings; that they encourage organisation, application, reasoning and creativity ; that they eliminate cheating and that they require a good deal of preparation and study on the part of the pupils. However, if open-book examinations are to be used with advantage, some changes in the form of questions are needed. The questions which encourage thinking should have to be encouraged. For them, books can be helpful only in providing the requisite material to think upon but they cannot substitute thinking because they do not think. These examinations are currently being utilized, on a large scale, in China, Israel and some other countries and a complete switch-over from the traditional examinations to the open-book has been successfully made. I may emphasize that I do not advocate a complete switch-over to the open-book examination for our country but at the same time, I believe that the teachers should not look down upon such examinations and should use them in their day-to-day work. I am sure, that if the teachers utilise a variety of evaluative devices and if due weightage is given to them in the instructional programme of an institution, it would go a long way in deconditioning the students and this would also pave a way for the introduction of the concept of internal assessment based upon a judicious use

and choice of different measuring tools. This would constitute a major examination reform.

Concept of Grading

The concept of grading is not new but grading as technique has come into forefront only in the last two years or so, ever since the publication of the University Grants Commission's plan of action. Personally, I favour grading but strongly feel that there is a lack of knowledge as to how this remedy should be used. It is desirable that we should discuss this in some detail.

The experts tell us that the raw marks allotted by an examiner to the candidate on a 101 point scale (range 0-100) are uncertain because it is not clear from the marks as to whether they have been awarded on the basis of a candidate's ability or his knowledge or memory or expression or a combination of one or more of these and other characteristics. No one really knows what the examiner has really measured. Hence, the 'mark' is an unreliable criterion for comparison, especially when marks from more than one subject are combined to yield an aggregate mark. Further, with the hurried and superficial scoring, selective study and wide choice in the examination, it is difficult, if not erroneous, to place great confidence on the marks. However, if the marks are transformed into smaller number of grades, each grade representing a range of marks, then many errors associated with marking would be minimized, we are told. If the purpose of examination is to rank each pupil relative to the other pupils, this function can be better performed by grouping all pupils in some categories, say, five or nine, according to the relative merits or demerits of each answer-sheet. Thus, it is possible to know by following this procedure that, a particular pupil is inferior to another pupil in the group even though, it is not possible to know to what extent he is either inferior or superior, something which marking tells. Thus, the errors of marking are eliminated and

the results get much reliability and dependability. This is the essence of the grading system.

Grading Technique

But how should one grade pupils? Options differ on the issue and, as such, there is hardly any single well-tried procedure for grading. A majority of experts, including those associated with the University Grants Commission, advocate the conversion of marks into grades according to some scheme. Let us consider a few suggested procedures. Prof. A. B. L. Srivastava (1975) for example, suggests that marks should first be assigned according to detailed instructions supplied to the examiners. Then the answer-sheets should be rank ordered. This should be followed by assigning better grades according to whether a pupil is among top 1st group, next 4th group and so on. Finally, the letter grades of different papers should be combined together by using some suitable statistical formula to arrive at an overall grade. Other experts, namely, Prof. Dandekar (1968), Prof. H. J. Taylor and Prof. A. B. Harper and V. S. Misra, however, favour grading on the basis of normal distribution whereby, pupils are put into different categories or grades according to whether they belong to the outstanding or very poor category, the percentage of occurrence of which is very less in any population or in any other lower category, the percentage of occurrence of which is considerably more. Thus taking a five grade system in which A stands for 'outstanding' and E stands for 'Very poor' the percentage of cases expected in each grade is 1, 24, 38, 24 and 7 respectively.

Nine-Point Scale

If the grading is carried on a nine-point scale, namely A1, A2, B1, B2, C1, C2, D1, D2, and E, i.e., (fail) the percentage of cases in each grade should be respectively 2, 8, 10, 14, 16, 20, 10, 10, 10. This is illustrated in the table at the next page.

TABLE 1

Range of marks	Percentage of candidate	Numerical grade	Letter grade
80.....	2	9	A1 } A
70—79	8	8	A2 } A
63—69	10	7	B1 } B
59—62	14	6	B2 } B
55—58	16	5	C1 } C
50—54	20	4	C2 } C
45—49	10	3	D1 } D
40—44	10	2	D2 } D
39—below	10	1	E } E

Thus both grading and scaling (transforming raw grades into comparable standard grades) is attained in this method. On the other hand, there are other experts like Dr. Dhaliwal, and Dr. Walker Hill who favour the use of an ordinal scale and suggest grading according to cut off points. In the example given above, for the five point grades, grade A would represent the top, 20% cases, grade B the next 20% cases and so on.

Limitations

An average teacher, unless he is a statistician or a psychometrician, is bound to get confused in the maze of technicalities and the holy war between the experts. It should be pointed out that there are serious limitations in the different approaches mentioned above. For example, if grading is to

be based on marking, we run into precisely those risks in which marking finds itself today. Secondly, the whole process of marking, ranking and grading would become very lengthy, tedious and cumbersome. Lastly, to force a teacher to restrict grading to a few categories, according to a cut off point, is unsound as it attacks the very roots of the freedom and the authority given to the evaluator. What is worse, to expect that our answer-sheets are selected from a normal population is a statistical fallacy because examinations are screening devices and, at every stage of education, our population grows more selective and hence skewed and asymmetric. Also the experts have telescoped the concepts of grading and scaling to worsen the situation.

Fundamental Problem

A fundamental question should be posed at this stage : Is marking necessary for grading ? Some experts are of the view that it would be better to grade from the marks that have been scaled. This, I have already pointed out, is very cumbersome and tedious. I, however, feel that when we have ultimately to grade pupils why should we bring in marking ? A usual criticism of the translation method rests upon the ground that translating everything into one's mother-tongue inhibits the learning of English. The same principle applies in the case of grading as well. Therefore, the sooner we reject the idea, the better. I believe that if grading has to be adopted, we should ask our teachers to think directly in terms of grades and not first award marks and then translate them into grades. In fact, about sixteen years ago, Basu Malik (1959) had shown that the examiners who assign direct grades are more reliable than those who first mark and then translate it into grades. We have corroborated Malik's results in a recent study at our institute and this further lends validity to the contention enumerated above.

We have also recently put into practice a newly-evolved system of grading at the post-graduate stage wherein the above approach has been made use of, but inspite of the inadequacy of

the proposed grading system as an evaluation technique, the initial results are so encouraging that I feel motivated to give the main features of MIER technique. Although it would be too early to pronounce any judgment on its superiority a course is being conducted by our institution.

MIER Technique

We start right from the stage at which the question papers are prepared. The paper-setter, after framing the questions, also identifies the main criteria on which the expected answer should be evaluated. He can be guided in this by the blueprint and the weightage given to the different content units in the curriculum. Naturally the list of the criteria would vary from question to question, from subject to subject and from one educational stage to another. Taking for example the evaluation in social sciences at higher stages, we identified in a priori manner, the following main criteria or dimensions on which an answer can be evaluated: correctness, appropriateness, comprehensiveness, originality, language and presentation, organisation of the content elaboration, assimilation and the understanding of the concepts. To these is added an 'any other' category so as to enable the inclusion of any other criterion should its need arise. For example, at higher stages, it may be important to look for the evidence on the application of one's own experiences, knowledge and further reading. At lower stages, on the other hand, memory testing may be an important objective. The question paper is expected to reveal to the pupils the different criteria on which their answers are to be evaluated. Thus, the objectives of evaluation are clear both to the pupils and to the examiners. This constitutes a significant examination reform.

Each evaluator is then required to grade a student on a five-point scale having 'excellent' and 'very poor' as the two extremes on each of the decided criteria. Further, to each point in the scale, a numerical weight ranging from 5 (excellent) to one (very poor) is allotted. The average grade can be determined by combining all the numerical weight and by

averaging them, taking the nearest whole number rule into consideration.

Alternative Method

An alternative method, which appears to be slightly more effective, consists in representing the grading results graphically. Instead of dividing a particular dimension on a five-point scale, each representing a modality, in the graphical scheme, each dimension is represented as a straight line having at its two ends the two extremes, namely 'excellent' and 'very poor'. Each examinee's performance is then represented by a point on this line. This method eliminates the categorizing of pupils into water-tight compartments which may be suggested by the letter-grade method. Further finer discriminations are made possible because the line is continuous and the ease in placing a candidate at any point along the line is a great benefit, just as the sliding switch which characterizes the modern models of radios and recorders happens to be more easy to operate than the conventional knob control. Denoting the placing for each question on the different criteria by a different mark, a typical graphical rating can be represented below :

TABLE II

Criterion	Excellent	Rating	Very Poor
Appropriateness			
Comprehensiveness			
Originality			
Language			
Organisation			
Elaboration			
Assimilation			

The evaluator, following the graphical method, can just place the pupil along a continuum and submit his answer-sheets—the grades can be conveniently determined by a stencil key in the examination branch. Further, a great advantage of this technique is that grades may be converted into either a five-point or a nine-point scale since a line can be divided in any number of parts.

Advantages

1. The proposed method is more scientific : The criteria to be evaluated are clear both to the pupil as well as to the evaluator. Further, it is systematic in that grading is not influenced by a particular criterion on a particular aspect. All the criteria have independent existence.

2. Halo effect is minimized : Halo effect is minimized, if not totally eliminated. In every question, the evaluator has to grade afresh on each criterion, thereby his mental make-up undergoes a change.

3. Objectivity is enhanced : Since the evaluator is concerned with the grading of a particular answer on a single criterion at one time, more objectivity is called into the process.

4. The system is ideal for diagnosis and prognosis : The conventional marking or the suggested grading system is unable to pinpoint where the student faltered, what are his weaknesses and what should the teacher do to improve those weaknesses. However, with the stepwise grading proposed, this purpose is excellently served and this alone can be enough justification for the promotion of this system. Remedial programmes can, therefore, be planned in the light of the results obtained and continuous progress can be evaluated and watched.

5. The system serves the motivational and the guidance purposes : Thanks to the stepwise grading, every pupil can know the areas of his strength and weaknesses—a knowledge which is so essential for any effective placement and guidance programmes. A knowledge of strengths in relation to weaknesses increases motivations in a pupil to improve his standing.

6. The proposed method is ideally suited as a system for constant evaluation: The proposed method is ideally suited as a system for constant evaluation of pupils by the teachers. If used extensively as a part of the total instructional programme, various criteria can be developed in the intellectual fields and their systematic and objective record can form the basis for internal assessment or even certification by the teachers themselves in due course of time.

7. The system retains all the benefits which are attributed to the grading done from marks and is yet independent of marks and the numerous errors involved in marking.

8. This system can be further simplified by following adequate statistical procedures. Since the criteria are all inter-related, it is certainly possible theoretically to assign relative weightage to them. In fact, it should be statistically possible to combine them into two or more major criteria.

9. The system is simple and direct. An examiner is directly required to grade. He is saved the trouble of marking and then grading or scaling.

10. The system is flexible in that discriminations, whether on nine-point scale or a five-point scale or even a three-point scale, become possible with a single grading. In fact, we are currently experimenting if it is possible to predict marks accurately from the grades. I personally think that it should be possible to do so.

To sum up, it may be remarked that we are witnessing today an educational scene, wherein conditions, concepts and practices are all undergoing a process of change. Examinations, as they are, would have to be suitably transformed to suit the changing circumstances. Mere discussions and arm-chair theorizing would not serve the purpose. There is an urgent need to develop a fresh conceptualization and a new map, based on empirical studies and considerable experimentation, so that examination reform may become a reality and a precursor to the educational reform, which is the need of the hour.

